THE SYNTAX OF REDUCED NOMINALS IN AKKADIAN

MARK JAMES HENRY

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Department of Linguistics
SOAS, University of London

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ABSTRACT

This thesis investigates within a generative framework a cluster of morphological and syntactic facts in the Old Babylonian variety of Akkadian, whose common property, despite many divergences, is the occurrence of structurally reduced nominal constituents. Akkadian nominals, whilst in their normal morphosyntactic form fairly rich both inflectionally and in their capacity to support complex nominal constituents, appear in various restricted syntactic contexts in reduced forms, entailing the loss of affixal expression of features (especially case, as well as gender and number), the barring of modifiers, as well as other restrictions. These phenomena may be divided into several major categories, one of which has clear parallels in well-studied Semitic languages (the nominal-internal 'construct state'), and others which do not have such parallels, including nouns in the construct-state morphological form as heads of relative clauses and the 'stative' (a peculiar form of nominal predication). Each of these phenomena is described, investigated and analysed in successive chapters, both individually and in terms of their interrelations and differences, and their possible implications for various aspects of generative syntactic theory are explored. For example, the investigation of the Akkadian construct state construction has important implications for aspects of the general generative theory of these constructions; construct-headed relative clauses both for this and for the theory of headed relative clauses, especially for the ongoing debate concerning the internal/external status of the head and some of the fine properties of the 'raising analysis'; the stative suggests the hitherto unrecognised existence of denominal incorporation to a verbal head producing a copula-like interpretation. This is the first extended generative study both of the Akkadian construct state and of the other phenomena mentioned above.

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To work in this way, for these purposes, on an extinct language is an odd experience, and to acknowledge one's debt for one's data is no straightforward matter, the attempt to formulate such an acknowledgement perhaps not even a sane ambition: one is acknowledging not the specific judgements given in response to specific requests by a few scattered speakers, but an entire dead society with all its history and woes and cares, of which anyone in the present, let alone the author, has only a very scant and uncertain knowledge. As one pages through modern publications, themselves the products of more than a century of painstaking work, in search of linguistic data, one cannot help but feel in this very distance and estrangement a ghostly kinship, especially when dealing not with texts of high literature but with

humdrum personal letters and other everyday material. It is at least undeniable that this project would not have been possible, not only without the aid and prior work of the entire tradition of Assyriological scholarship, but also without these lives and the spectres of them preserved in the documents that survive them. To these alien men and women from an alien time, I suppose I must offer some expression of this strange debt; to them I thus offer some amateurish imitation of their language, the last clause liberally adapting a real sentence I once ran across, buried somewhere in darkest *AbB*.

ana awīlē ša Marduk uballiṭūšunūti qibī-ma umma MJH-ma
ina ṭuppātim anniātim awīlūtī amrā

ABBREVIATIONS

This list of abbreviations includes those which occur in the glosses and citations of examples, together with various others which occur in the text. It does not include the few bibliographical abbreviations used, mostly in example citations, which typically appear alongside author-date references (see pp. 19-21); the sole exception included here is *CAD*, which is used in the text and cannot easily be cited by an editor's name.

1/2/3	first/second/third person
A	adjective
ABSTR	derivational affix forming abstract nouns
ACC	accusative
AdjP	adjective phrase
ADV	adverb
C	complementiser
CAD	Chicago Assyrian Dictionary[1]
CAUS	causative
CHRC	construct-headed relative clause
col.	column
COMIT	comitative
CONJ	conjunction
CP	complementiser phrase
CS	construct state
CSTR	construct state
D	determiner
DAT	dative
DEF	definite
DP	determiner phrase
EHRC	externally-headed relative clause
EMPH	emphatic
EPENTH_V	epenthetic vowel
ExP	extended projection
F	feminine
FEM	feminine
GEN	genitive
IHRC	internally-headed relative clause
IMPV	imperative
INST	instrumental
INDEF	indefinite
INCEP	inceptive
INF	infinitive
INTERROG	interrogative
ITER	iterative
K	Kase (case-as-category)
KP	Kase phrase
l. (ll.)	line (lines)
LI	lexical item
LOC	locative
M	masculine
MA	Middle Assyrian
MASC	masculine
max	maximal projection
MB	Middle Babylonian
N	noun
NB	Neo-Babylonian
NEG	negation/negative
NOM	nominative
NP	noun phrase

[1] *The Assyrian Dictionary of the Oriental Institute of the University of Chicago*. 1956-2011.

Num	number
NumP	number phrase
O	object (in order statements, e.g. VSO)
OA	Old Assyrian
OB	Old Babylonian
OBJ	object
P	preposition
PASS	passive
PERF	perfect
PL	plural
PlN	place name
PN	personal name
POSS	possessive (pronoun)
PP	prepositional phrase
PREC	precative
PRES	present
PRET	preterite
PTCL	particle
QUOT	element marking direct quotation
RC	relative clause
REL	relative/relativiser
S	subject (in order statements, e.g. VSO)
SB	Standard Babylonian
SBJ	subject
SBJV	subjunctive
SG	singular
Spec	Specifier
SR	*status rectus*
STAT	stative
SUBJ	subject
T	tense
TOP	topic
TP	tense phrase
V	verb
VENT	ventive
VP	verb phrase

0 Introduction

This study examines aspects of the syntax of reduced nominals in Old Babylonian Akkadian. Nouns in Akkadian present a cluster of unusual properties which offer intriguing possibilities for the study of the behaviour of, and distributional restrictions applying to, morphologically or phrasally minimal or reduced nominal forms. These include a morphologically (and sometimes phrasally) minimal 'construct state' form, which has a wider and more complex distribution in Akkadian than in other relevant languages, including appearance on heads of relative clauses; a further unusual structure involves a form in which a minimal nominal apparently surfaces in predicative sentences in a syntactically verbal environment, a construction which has been varyingly regarded as nominal or verbal in nature in the descriptive literature. All of these phenomena overlap at least partly in their syntactic contexts with full forms of the nominal projection. This study has two interlocking aims: first, to make descriptions and analyses of the Akkadian phenomena and their implications for linguistic theory available to generative linguists for the first time; second, to bring the rich analytical tools of the generative tradition to bear on the understanding of these phenomena, a full account for the syntactic properties of which has thus far, as we shall see, escaped the Assyriological tradition of linguistic description.

0.1 Akkadian

Akkadian is an extinct language belonging to the Semitic family, comprising a continuum of closely related varieties spoken primarily within the confines and immediate environs of the area delineated by the Tigris and Euphrates rivers in and around present-day Iraq. The language (with the obvious caveat of substantial dialectal variation and diachronic development) is textually attested from around the 24th century B.C. to at least the first century A.D. (for possible later attestation cf. Gellar 1997), though Akkadian appears to have been in decline as a natively spoken language in its core area during the mid-first millennium B.C. The language was written, generally by impression on clay, in a mixed syllabic-logographic script now known as cuneiform; there exists a very large and diverse body of texts (many

hundreds of thousands in total) preserved in the form of clay tablets as well as inscriptions on stone and other materials.

Knowledge of Akkadian was lost following its demise, and the language remained unknown until approximately 150 years ago. Occasional attempts at the decipherment of Akkadian, most of only marginal relevance to the mainstream process, begin to appear during the early nineteenth century (e.g. Grotefend 1814). The principal development of the reconstruction began in the mid-1840s, and progressed thereafter with relative rapidity,[1] before becoming substantially settled in its fundamental principles by the late 1860s.[2]

The syntax of Akkadian was substantially documented in a basic sense by the late 19th century, and our understanding of the language now benefits from a decades-long tradition of extremely extensive textual and descriptive investigation; as well as a vast technical literature, the Assyriological field has produced substantial general descriptive and pedagogical grammars (e.g. von Soden 1952/1995, Huehnergard 2000, Ungnad and Matouš 1992), dictionaries (von Soden 1965-1981 and the encyclopaedic *Chicago Assyrian Dictionary*), and general sign lists (most recently Borger 2004, Labat 1988, von Soden and Röllig 1991) as well as a range of specialised studies of individual varieties and phenomena.[3] Given the extremely large body of texts which have been consistently and successfully interpreted on the basis of the description of Akkadian whose fundamental content has been stable for more than a century, we may regard Akkadian as being as basically secure for many linguistic purposes, including relevant syntactic areas, as any long-extinct language. However, in comparison with Latin and ancient Greek in particular,[4] attempts to tackle issues in Akkadian grammar from a generative viewpoint have been very rare and limited.

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[1] Many recent publications give more or less summary descriptions of the reconstruction of Akkadian; a representative example is Pope (1999: 82-105). The most helpful overview in English is probably that of Bermant and Weitzman (1979: 70-123). Still the fullest account of the process, and significantly the fullest bibliography of early work on Akkadian and related publications, are those of Fossey (1904), though they are obviously now outdated in some respects.

[2] See for example the grammatical sketch given by Hincks (1866), whose fundamental principles, despite much relatively cosmetic alteration and substantial addition and clarification, remain for the most part unaltered today. Amongst the important early works on Akkadian may be named those of Löwenstern (1845, 1847) and Botta (e.g. 1847), and especially those of Hincks (e.g. 1846, 1848, 1855, 1863) and Rawlinson (e.g. 1850, 1851, 1852).

[3] See e.g. George (2007), Huehnergard (2000: xxxi, xxxiii-xl), and for older studies also von Soden (1995: xxix-xxxi) for introductory references to the specialised literature.

[4] Substantial recent works taking a generative perspective on these languages include Embick (2000), Melazzo (2005), Polo (2005), Salvi (2005); Devine and Stephens (2000), Spyropoulos (2005), Sevdali (2007).

The corpus of Akkadian is extremely large; owing primarily to the durability of the clay writing medium, texts are preserved in great profusion, frequently without the intervention of a lengthy scribal tradition of copying, as has generally been the case with extinct languages textually preserved largely via organic media, such as Latin and Greek.

Although we are dealing with a closed corpus, a substantial increase in the available data can reasonably be expected in future. Excavations regularly add to the existing corpus (although the possibilities for archaeological work in present-day Iraq and Syria in particular are clearly limited at present), as does the continuing publication of texts not previously studied. The range of textual material available is extensive, ranging from formal inscriptions and literary texts to letters, administrative documents, and specialised texts associated with various professions, amongst other types. Whilst some segments of the data set (such as some short, highly abbreviated/logographised administrative documents) are problematic from a linguistic point of view, a very large portion of this corpus is accessible for syntactic analysis.

The term 'Akkadian' covers a chronological period of more than two millennia and a very broad geographical and 'dialectal' range. Conventional broad divisions segment the language chronologically into early 'Old Akkadian' (before ca. 2000 B.C.), and Old, Middle, and New (Neo-) periods (ca. 2000-1500, 1500-1000, and 1000-, respectively, with certain other divisions in the later periods which need not concern us here). In these latter three a high-level dialectal division can be made between 'Babylonian' (southern) and 'Assyrian' (northern) varieties. This categorisation naturally ignores many finer divisions.[5]

This study focuses on the so-called Old Babylonian variety of Akkadian (OB). Old Babylonian is the only variety to clearly exemplify all the phenomena which are discussed in this study.[6] In addition, the Old Babylonian material, as well as presenting a large and linguistically diverse data set, is in comparison to some

[5] A survey of these classical distinctions is given by von Soden (1952/1999: 296-302/§187-§196); for a more recent overview discussion, with many useful references, see Kouwenberg (2010: 9-19).

[6] With the exception of the so-called Standard Babylonian variety (SB, a.k.a. *jungbabylonisch*), a high-register variety of later periods which appears to have functioned as a formal/literary language both in the Babylonian-speaking region and the Assyrian-speaking region. SB retains some morphological and syntactic features of OB lost in other later varieties, but equally is quite distinct from OB in many respects. It is extremely unclear to what extent Standard Babylonian had any relation to the contemporaneously spoken language in any of the areas of its use; as such, its value for linguistic inquiry from the perspective of a study such as this one is uncertain.

later forms of Akkadian relatively less affected by obscuring factors such as apparent linguistic conservatism in the orthography preserving many features which had likely disappeared in the contemporaneous spoken language, and also has lesser tendencies, in many text genres, toward very heavy use of logographic writings, which can frequently be an obscuring factor in the examination of certain syntactic issues in some genres and periods. As such it presents, of all varieties of Akkadian, perhaps the most extensive prospects for fruitful linguistic study in general, as well as certainly the best candidate variety for the purposes of the present study.

The term Old Babylonian is frequently used to refer to the complex of 'Babylonian' Akkadian over four to five hundred years from approximately 2000 B.C. onwards, as well as to a wider geographical distribution than is considered in this study. The variety referred to here as Old Babylonian (OB) may be more accurately termed 'Core Old Babylonian'.[7] The period of attestation of core OB is, roughly speaking, from approximately (in a standard chronological framework[8]) 1800 B.C. to the end of the 'First Dynasty of Babylon' ca. 1595 B.C, where textual attestation of OB, roughly speaking, ceases. Geographically it comprises OB texts from southern Mesopotamia, i.e. the southern part of modern Iraq. The exact dates of many texts are not explicit, and the provenance of a significant proportion is more or less obscure, and must be inferred from a combination of (where possible) archaeological, orthographical, and internal linguistic evidence, as well as cross-reference with known names, events, etc., in the content of texts.

Included in this study is the general mass of 'core Old Babylonian' prose texts. These include letters (principally those published in the series *Altbabylonische Briefe* [AbB], along with some miscellaneous publications); contract, legal and administrative documents (especially those edited by Schorr 1913, along with various other sources); royal inscriptions of the core OB period (collected, with others, by Frayne 1990); and certain other prose texts, notably the body of the Codex Hammurapi and the Laws of Eshnunna. I have also drawn, though with less regularity, on omen and related texts, where devoid of problematic syntactic formulaisms and (where relevant to the point in question) pervasive specialised and often obscure uses of lexical items.

[7] Equivalent in chronological terms to the "Classical Old Babylonian" of Kouwenberg (2010: 13).
[8] Although the internal/relative chronology of these periods is in many points well established, controversy in the field of absolute chronology persists. For introductory references to the chronological controversies see Kuhrt (1995: vol. I, 12 and 15 n. 9).

Specifically excluded from the core data of this study are, especially: so-called 'early OB', which is a clearly distinct variety;[9] poetry and texts of high literature[10] (except royal inscriptions where these constitute more or less high-register prose OB); and the extensive Mari (and related) data. The latter (sometimes known as 'northern OB', and mainly, though not exclusively, from the site of Mari/Tell al-Hariri, now in eastern Syria) qualify in most terms as prose OB, and many studies of OB admix Mari data indiscriminately with core OB. However, it is difficult to know to what extent the Mari texts comprise the productions of native speakers of Akkadian, which does not appear to have been the indigenous language of the area; as such it is excluded from the core data of this study. Where useful to the discussion, of course, some data from Mari and, where relevant, data from other dialects of Akkadian is mentioned for purposes of comparison, always clearly marked as such.

Though much of the data underlying this study has been independently gathered, most of the descriptive frame which underlies the presentation of the facts of the various phenomena is more or less conventional; substantially novel proposals in the (narrow) sense of description do occur, notably in chapter 1, but for the most part the more rudimentary facts presented are well-established. This is not to say that the discussion is always presented in the terms or arrangements common to the Assyriological tradition, many of which are not possible to simply take over into a study of this type (due, for example, to that tradition's frequent focus on diachrony, or the use of a descriptive-theoretical inventory peculiar to itself); in any case, substantial reformulations of presentation are necessary in order to present these phenomena in the specific context and concerns of this study, which are not directly shared with most Assyriological discussions of the individual phenomena, and

[9] On 'Early OB' see especially Whiting (1987). Some register a further distinction between 'Archaic Babylonian' and 'Early Old Babylonian', which need not concern us here; on this see Kouwenberg (2010: 12-13), with further references.

[10] So-called 'literary Old Babylonian' is quite divergent from conventional prose OB. The most marked differences include phonological archaisms (non-contraction of vowels in inflectional processes), morphological archaisms (such as archaic cased forms of the construct state) and substantial syntactic divergences, including especially the regular violation of strict verb-final word order, which is vanishingly rare in prose OB (especially in the sense of VS orders). It is a matter of some controversy whether this form of the language is merely a high/archaising register with a certain degree of 'poetic license' or registers a more substantial 'divide'; cf. the classic study of von Soden (1931, 1933), which separated the language of literary texts into a "hymno-epic dialect". A recent descriptive study of literary OB is Izre'el and Cohen (2004); see also Wasserman (2003), which contains a catalogue of texts. A different (and linguistically dubious) definition of 'literary OB' is pursued by Metzler (2002), who aggregates, on essentially non-linguistic grounds, the normal scope of the term together with omen and related texts and the body of the Codex Hammurabi, inter alia.

certainly not with any impression of the overarching theme, which is absent from descriptive analysis of these phenomena by themselves. Many are seen in a very new light from the perspective of the generative paradigm and the more general tradition in which it is implicated. It is impossible in the individual chapters which follow to provide full notice in every single case where my own presentation of the facts has undergone a realignment from what might be termed the shared conceptual frame of the Assyriological perspective; I have, of course, noted those significant departures which it seemed to me could have substantial effect on the discussion. I have sought to provide clear notice wherever such departures constitute more than mere notational re-presentation, alternatively framed summarisation, or the paying of attention to facts of the data which are simply taken for granted in existing discussion, but which are of independent interest for our purposes.

The topics dealt with in this thesis vary considerably in the attention that has been given to them in the Assyriological descriptive tradition. Thus the stative (chapter 3) has attracted sporadic but repeated attention and vigorous debate for the past half century (beginning, in the field of concentrated topical studies, with Rowton 1962); by contrast, construct-headed relative clauses (CHRCs, chapter 1) attracted no independent examination for more than sixty years after the study of Akkadian relative clauses by Ravn (1941), until the brief essay by Johnson (2005) and the more general exploration of Cohen (2008). It will be argued below that the former of these two, which is partially devoted to explaining the CHRC, provides neither any new information concerning nor any useful analytical insight into the phenomenon; in the latter, and in Ravn's work, the examination of CHRCs is subordinate to that of the alternative *ša* construction, and, in Cohen's case, to various other syntactic facts besides. In short, the CHRC has never been seriously studied in its own right. It is therefore unsurprising that the present study should set forward novel descriptive hypotheses primarily in this case. Those aspects of our discussion to which less specific attention has been given in the Assyriological literature are naturally more reliant, in some cases, on partially innovative presentation of facts.

0.2 Note on Terminology

It is inevitable that a study of this kind, which crosses two traditions between which there has barely been any contact at all, will face certain problems at the interface

between their respective terminologies and conceptual apparatuses, not only as regards attempted fusions or the determination of which should be dominant, but because virtually all readers will be unfamiliar with at least one of the two subsets. As a generative study of phenomena of Akkadian syntax, the relevant sections assume a broad knowledge of the generative framework in question. Even those earlier sections of some chapters which should be largely comprehensible without this specialist background are naturally couched in terms liable to be of most use to readers familiar with the generative paradigm. Assyriological descriptive categories are seen through the prism of a general-linguistic inheritance which forms an implicit common background to this paradigm and traditions related to it, with which the specifically Semitist and Assyriological inventories, having developed in a largely insular fashion, are sometimes at a relatively minor kind of variance.

My terminology for specific, mainly morphological, phenomena is usually taken directly from the standard descriptive tradition. Mostly I have used the more or less 'traditional' standard terms, especially where recent descriptive controversy exists (as with *stative*, most significantly); in such cases, as with the conventional names of the nominal 'states' themselves, the terms are treated as essentially arbitrary labels, and their use is often to be taken as indicating no more than the influential status of a descriptive category which may or may not possess any underlying coherence in an analysis couched in the broad framework adopted here. Sometimes I have made a largely arbitrary choice according to the idiosyncratic needs of this study and its probable pool of potential readers (as with *status rectus*/SR, on which see ch. 1, section 1.1). Major relevant dissensions concerning core terms are noted in the appropriate places.

By contrast, a proportion of my purely descriptive or 'naïve' syntactic terminology is of my own coinage. These terms are introduced and defined in the appropriate places. So, for example, the label construct-headed relative clause (CHRC), a phenomenon for which no standard term exists, is essentially my own, though, of course, 'relative clauses headed by a noun in the construct state' is far from unknown as a description rather than a conventional designation. Likewise various items of the terminology employed for syntactic entities implicated in the nominal-internal construct-state phenomenon are peculiar to this study, though non-standard comparators certainly exist both in the literature on Semitic and in generative papers on the construct state, none of which appear to be widely adopted.

0.3 The Akkadian Writing System and the Presentation of Examples

Akkadian was written in a script which is primarily syllabic but also employs logographic elements more or less widely. The syllabic portion of the script is sometimes variable in representing certain phonetic and phonological features (e.g. gemination, vowel length, some articulatory features of plosive consonants). Words written logographically are frequently lacking explicit representation of grammatical affixes, etc., which are regularly represented in phonetic writings.

Providing a truly adequate transcription of Akkadian for linguistic purposes is thus somewhat problematic. Common practice in linguistic descriptions of Akkadian is to differentiate two separate levels of transliteration for the cuneiform script. The first is a direct sign-by-sign "transliteration" designed to explicitly represent only the information present in the script itself, and also to make explicit the identity of each individual sign used. The second (termed "normalisation" or, somewhat confusingly, "transcription") is a largely standardised form of transcription whose basic purpose is to provide an approximation of what is presumed to be the actual phonetic form of the language, a standardisation drawing on various sources, including comparison of orthographic variants within the script and of cognate forms in other Semitic languages; normalised transcription includes standardised representations of features which are intermittently non-explicit in the cuneiform script, as well as, conventionally, a 'spell-out' of the assumed Akkadian forms underlying logographically-written elements.[11]

In the present study, as is conventional in linguistic discussions of Akkadian, examples are cited in normalisation. In contrast to the norm in Assyriological work, morphemic divisions are systematically indicated, and examples are, naturally, fully glossed (the only lengthy study I am aware of in which Akkadian examples are consistently glossed is Deutscher 2000). My glossing is more consistently full than that of Deutscher, and diverges from it in many matters of presentation; my practice is largely in accord with standard glossing procedures, but the application to

[11] As might be expected, an attempt to translate the cuneiform script into a fully explicit representation leads in some cases to more or less serious issues in the study of Akkadian phonology and morphology. These problems do not generally have a significant impact upon the syntactic issues dealt with in this study. Recent discussions of issues surrounding normalised transcription have tended to focus on phonological issues, especially concerning the representation of sibilant consonants; see e.g. Westenholz (2006) on Old Babylonian.

Akkadian is essentially innovative in format (though not in 'content').[12] In a few cases I have taken over more or less idiosyncratic or rare terms standard in the descriptive tradition into the glosses; notably, the controversial verbal suffix known standardly as the 'ventive', which has little if any effect on the topics discussed here, is simply glossed VENT.

A further divergence from previous practice in this study concerns the treatment of logograms. The great majority of 'normalisations' in Assyriological work do not indicate the distinction between logographic and syllabically written elements at all, nor the distinction between affixal morphemes which are 'assumed' in relation to non-transparent logographic writings and those which are fully explicit and transparent; some indicate these distinctions irregularly by reverting to 'transliteration' for some, relevant, logograms. It has been judged preferable here, in view of the potential non-Assyriological readership, to normalise throughout,[13]but to systematically differentiate logographically-written elements by enclosing these within curly brackets. Furthermore, a distinction is made between those logographic writings which indicate some or all affixal morphology by means of so-called 'phonetic complements' (i.e. syllabic signs) and those which do not (more rarely a part of the stem may also be indicated by the syllabic sign(s) constituting a phonetic complement). Morphemes which are 'assumed' from syntactic context are enclosed, within the aforementioned curly brackets, within a further set of (normal) brackets; morphemes indicated by phonetic complements stand outside the curly brackets.

[12] In the glossing of lexical items, for common words especially, I have generally adopted a standard gloss, regardless of the fact that this may underrepresent the full range of meaning or, indeed, the meaning strictly appropriate to the context. These include especially most prepositions, so *ina* = 'in', *ana* = 'to', etc., even though both have various other ranges, including instrumental in the former case and benefactive in the latter. See also *awātum*, always glossed with the standard term 'word', even though this is really quite inappropriate in nearly all cases, where common senses span 'speech/utterance of any length' to even broader meanings (rather like the Greek *logos* or even the Latin *res*) approximating 'proposal', 'matter' or 'act'. The translations given will make such matters clear. I have not hesistated, however, to gloss some words in special contexts as is appropriate to that context, where it did not seem possible to adopt a fully standard gloss. So, for example, *kiṣrum* is glossed 'rent' in an appropriate context in a legal document, notwithstanding wider non-technical senses ('bond/clasp/knot', etc.). Personal names (including those of deities) are glossed PN; toponyms are glossed PlN (i.e. 'place name').

[13] One set of exceptions to this practice are most constituents of the surface form Numeral-Measure-Noun. These are in the overwhelming majority of cases written logographically, and as such their underlying Akkadian form is often controversial. In accordance with common practice, the normalisation of such writings is discussed only where the exact Akkadian morphosyntax of these constituents themselves is specifically relevant to the main point under discussion; elsewhere, they appear inside curly brackets in the usual transliteration. In accordance with one standard practice in the transliteration of logograms 'as logograms', these are given in upper case, in contrast to the lower case italics otherwise employed.

These distinctions are paralleled by a matching use of the same pattern of bracketing in the glosses.

Thus an instance of LUGAL (the standard transliteration, based on the relevant Sumerian word, of the logogram for Akkadian *šarr-* 'king'), in the syntactic context of a noun expected to be marked singular genitive, will be cited as {*šarr-*(*im*)}, and glossed {king-(GEN.SG)} indicating that the stem is logographically written and that the affix is not explicit. Conversely, such a logogram followed by a 'phonetic complement' making explicit the state/case suffix, as for example LUGAL-*im*, will be cited as {*šarr*}-*im*, and glossed {king}-GEN.SG, indicating that the stem is written logographically but that its affixal morphology is explicit.

One further point of note is that, in the relatively few cases in which explicitly 'impossible' examples are explicitly formulated, I have used the symbol ^ preceding these (as well as explicit notice in the text) to indicate this. This symbol indicates that a form is judged on the basis of non-attestation and further relevant secondary evidence to be impossible, avoiding the use of *, whose standard technical use in synchronic generative work is to indicate ungrammatically determined directly by native-speaker judgement.

Examples are usually cited with reference to a single edition. In most cases this will contain a (sign-by-sign) transliteration and a translation. In many cases, therefore, the normalisation given is 'my own' in a trivial sense (that is, essentially mechanically derived in a standard fashion from the transliteration[14]). In some cases, cuneiform copies are also given in the same publications, but more commonly these are published separately, with references given in the cited edition.

The one significant exception to this situation is the Codex Hammurabi, the standard 'edition' of which is spread across various separate publications, in a manner which may be confusing to non-Assyriological readers attempting to follow up references. For this reason references to the CH are simply given as "Codex

[14] There is some, mostly very minor, variance of 'normalisation procedures'; for a short introductory discussion accessible to the non-specialist see Richardson (2000: 20-22); in Richardson's (perhaps slightly arbitrary) division between an 'American' and 'Continental' tradition of normalisation mine is usually in line with the latter. This is essentially the system adopted by von Soden (1952/1999). For an indication of the process by which older systems of transliteration and normalisation evolved towards present norms, one may consult for example Gelb (1948, 1951). One point of note is that I have made an essentially arbitrary choice to adopt the newer interpretation of the very frequent word uniformly written with the sign ŠE (alone as logogram or with case morphology written syllabically) as *ûm/âm/*etc., as opposed to the older and long assumed reading *še'-um/še'-am/*etc. Where ŠE is written with syllabic case-indicating complements it is thus *not* marked as logographic in our normalisation. This has no actual impact on any matter discussed.

Hammurabi" with reference both to the standard 'Law' number and the exact column and line reference (following Borger, see below); the following paragraph cites the standard publications.

The standard cuneiform edition of the stela of the CH and various other exemplars is Bergman (1953); see also the photographs published by Scheil (1902: 11-131).[15] For references to additional exemplars postdating Bergman's publication, see Borger (1979, vol. I: 2-4). The standard transliteration is Borger (1979, vol. I: 5-50). Recent normalisations with translations are those of Richardson (2000) and Roth (1997). The long standard edition of Driver and Miles (1955), including transliteration and translation, is now outdated.

Standard practices of bibliographical citation in the Assyriological literature as against the linguistic are sharply divergent. In linguistic work author-date citation with final lists of references is the norm; in the Assyriological literature in-line references via extensive footnoting is typical. Assyriological work also makes extremely heavy use of bibliographical abbreviations.[16] In this study the normal practice in linguistics is followed throughout the text,[17] with the sole exception of citations of the *Chicago Assyrian Dictionary* (CAD), to whose more than twenty volumes no easy author-date reference is possible.[18] In the citation of examples a slightly more complicated format is followed (except for citations of the Codex Hammurabi, as noted above). In order to enable Assyriological readers to easily follow up references to data, I have used the more standard abbreviations (so e.g. the series *Altbabylonische Briefe* as AbB, Schorr (1913) as VAB 5 [*Vorderasiatische*

[15] A recent publication (Richardson 2008) reproduces Bergman's text of the stela alongside (somewhat bizarrely) a normalisation with no transliteration or translation. The cuneiform text is reduced in size and thus in places quite unclear compared with Bergman's. Richardson's preface (2008: 7) states explicitly that this volume also reproduces Scheil's photographs, but the copy available to me does not contain them.

[16] Standard lists include those in the volumes of the *Chicago Assyrian Dictionary*, in von Soden (1965-1981), and in issues of the journal *Archiv für Orientforschung* (Vienna). A useful and accessible composite list for the non-specialist is published online on the website of the Cuneiform Digital Library Initiative (http://cdli.ucla.edu/wiki/doku.php/abbreviations_for_assyriology). See also the older but still useful lists of Borger (1967-1975 vols. I and II).

[17] So even for the most ubiquitously abbreviated and common references in the Assyriological literature; thus the standard reference grammar universally cited in the Assyriological literature as GAG [*Grundriss der Akkadischen Grammatik*] is cited here as von Soden (1952/1995) [i.e. the dates of the first and most recent edition]. Note that references to GAG give both page and section references; the former refer to the third edition, but the latter should be valid for the earlier editions.

[18] Citations of the CAD in the Assyriological literature, as here, follow a standard pattern of the following type: CAD A2 14 s.v. *amāru* 2g, i.e. CAD, second volume for the letter A, page 14, under the entry *amāru* A (distinguished from *amāru* B, etc.), section 2 of that entry, subsection g. The structure of these references may be curtailed for broader citation, e.g. a reference to the entire entry for *amāru* A might read CAD A2 5-27.

Bibliothek, a series title]). These are followed by reference to specific text number and line numbers. However, for the benefit of linguistic readers to whom these references will be non-transparent, the author-date reference of the relevant publication is suffixed to this more traditional format (where no standard abbreviation has been in lengthy and general currency, I have used the author-date alone, followed by text/line citation in the usual way).

So, for example, AbB 2: no. 43, l. 20 (Frankena 1966) refers to the second volume of the series *Altbabylonische Briefe*, text number 43, line 20;[19] the author-date reference identifies that specific volume. Thus an Assyriological reader may not be immediately aware that Frankena (1966) = AbB 2, but will instantly recognise the latter, whereas a linguistic reader may be entirely unable to locate AbB 2 without at least the name of the editor. Full references are, of course, included in the final bibliography, under authors'/editors' names.

0.4 Generative Methodology and Ancient Languages

It may be questioned whether work on generative syntax, with its classic methodology of obtaining grammaticality judgements from native speakers, can be applied in the study of extinct languages. Besides the usefulness of bringing modern syntactic concepts to bear on issues in the documentation of extinct languages (cf. Kiss 2005), positive and contrastive data can, depending upon the details of the particular case, be sufficiently clear to render phenomena displayed by extinct languages accessible to generative analysis.

I have previously attempted to show, in a study of the nominal "absolute state" of Syriac (an extinct member of the Aramaic subgroup of Semitic), that phenomena displayed by reasonably well-understood extinct languages which are capable of examination on a basis of distributional contrast rather than strict (un)grammaticality - that is, those phenomena which possess counterpart constructions with which they contrast and/or partially overlap in syntactic environment – have great potential for analysis despite the difficulties posed by the lack of native-speaker judgements (Henry 2009).

[19] The text/line citations are usually expanded somewhat from the usual Assyriological practice, in which the above would normally be cited as AbB 2: 43, 20 or similar.

The syntactic phenomena under examination in the current project all present ample distributional contrasts of the appropriate type: Akkadian construct-headed relative clauses overlap with the broader distribution of *ša*-type relative clauses; Akkadian nominal possessive structures likewise show a construct-state vs. *ša*-type distributional divide which provides significant material in itself as well as an (apparent) parallel to the distinction between relative structures which, under detailed scrutiny, in fact reveals nuanced and important divergences between the two environments of the morphological 'construct state' which have often been unduly conflated in prior work. Topics covered in this study which do not directly involve construct-state nominals directly also present similar possibilities. The nominal stative construction, as well as forming part of an internally complex phenomenon, contrasts with another, less constrained, predicative strategy.

Indeed, in the case of phenomena which are only capable of full analysis under subtle examinations of distributional contrasts with alternative or complementary strategies, study of a substantial body of data evidencing these distributional contrasts may be the initially most profitable course in the attempt to define and analyse the distribution of and restrictions on these structures; whilst an examination on both distributional and judgement bases in a living language is clearly preferable where possible, languages such as Syriac and Akkadian present sufficiently unusual and intriguing phenomena that the reasonable possibility of achieving substantial results on the distributional front alone renders the close study of these phenomena worthwhile.

1 Construct-Headed Relative Clauses

1.0 Introduction

This chapter considers the structure of headed relative clauses in Old Babylonian,[1] with a particular focus on relative clauses whose head noun appears in the construct state.

OB possesses two principal relativisation strategies. The first involves an invariant relativiser *ša*.[2] The head noun appears at the left edge of the relative clause, similarly to postnominal externally-headed relative clauses in many other languages. The head displays the normal case-inflected suffixal morphology shown by Akkadian nouns in most circumstances, and bears case according to its function in the matrix clause.

(1) *rugumm-âm* *ša* *ina* *dīn-im* *šuāti*
claim-ACC.SG ŠA in trial-GEN.SG that.MASC.ACC/GEN
i-b-baššˇ-û *{adi}* *{12}-šu* *i-naddin*
SBJ:3-INCEP-exist-SBJV {up_to} {12}-POSS:3MS SBJ:3-give.PRES[SBJ:SG]
"He will pay twelve times the claim that came about in that trial."
Codex Hammurabi §5 (col. vi.), ll. 18-22.

(2) *šīb-ū* *ša* *maḫrī-šunu*
witness-MASC.NOM.PL ŠA in_the_presence_of-POSS:3MPL
šīm-um *i-š-šām-u* [...]
purchase-NOM.SG SBJ:3-PASS-purchase[SBJ:SG]-SBJV
mudûs-sunu *maḫar* *il-im*
knowledge-POSS:3MPL presence[CSTR] god-GEN.SG
i-qabb-û-ma
SBJ:3-speak.PRES-SBJV-CONJ
"The witnesses in whose presence the purchase was made [...] will state what they know in the presence of a god."
Codex Hammurabi §9 (col. vii), ll. 30-37.

A second relativisation strategy occurs, in which the head noun appears in the construct state. The Akkadian construct state is devoid of case-marking in most

[1] The facts discussed in this chapter may be similar in the later Babylonian varieties, but this issue has not yet been studied in detail. See Ravn (1941: 90, 94, 97-8) for references to a limited amount of NB data, Aro (1955: 147) for MB; the distribution of the construct state in genitival contexts is likely to have been more restricted in Neo-Babylonian than in OB (Woodrington 1982: 206-218). Construct-state headed relative clauses are probably absent, or have a very different and much restricted distribution, in the Assyrian varieties of Akkadian (Hecker 1968: 246 knows only one possible example from Old Assyrian; Meyer 1971: 112 cites three possible cases in the Middle Assyrian material. *ša*-RCs, by contrast, are normal and extremely frequent in OA and MA. I am not aware of attestation of construct-headed relatives in Neo-Assyrian; cf. Hämeen-Anttila 2000: 125-127).

[2] In order to avoid a prejudgement at this stage of the syntactic status of *ša*, which occurs in the same surface form as a relativiser and a marker of genitival relationships (see immediately below and ch. 2), it is throughout glossed simply as ŠA.

forms (except duals and masculine plurals; this crucial point will be returned to later). As with the *ša* strategy, the head appears at the left edge of the relative clause, but stands in direct linear adjacency to the leftmost constituent of the embedded clause, without any separate overt relativiser.

(3)

šumma	[...]	***awā-t***	*i-qb-û*
if		word-FEM[CSTR]	SBJ:3-speak.PRET-SBJV
lā	*u-k<t>īn*		
NEG	SBJ:3-<PERF>be_firm.CAUS[SBJ:SG]		

"If [...] he has not proved what he said" ('the word(s) that he spoke').
Codex Hammurabi §3 (col. v), ll. 57-63.

(4)

qīš-t-i	*ab-um*	*i-ddin-ū-šum*
gift-FEM.SG-CSTR	father-NOM.SG	SBJ:3-give.PRET-SBJV-DAT.3MS
i-leqqē-ma		
SBJ:3-take.PRES[SBJ:SG]-CONJ		

"He will take the gift that his father gave to him, [and …]".
Codex Hammurabi §165 (col. xxxiv/R.xi), ll. 44-46.

The prototypical environment of the construct state, and its sole environment in some Semitic languages, is, of course, that of a marker of the possessum noun in genitival relationships internal to nominal phrases. This use of the construct state is widespread in Akkadian, and is considered in more detail in the next chapter, after detailed examination of the properties of relative clauses headed by nouns in the construct state, which, as we shall see, will establish important divergences which have not been previously recognised.

(5)

ina	***qāt***	{***mār***}	*awīl-im*
in	hand[CSTR.SG]	{son([CSTR.SG])}	*man*-GEN.SG

"In the hand of a man's son."
Codex Hammurabi §7 (col. vi), l. 48.

(6)

šumma	***ašš-at***		*awīl-im*	*itti*	*zikar-im*
if	wife-FEM.SG[CSTR]		man-GEN.SG	with	male-GEN.SG
šan-îm	*ina*	*itūl-im*	*i-t-t-aṣbat*		
other-GEN.SG	in	sleeping-GEN.SG	SBJ:3-PASS-PERF-catch[SBJ:SG]		

"If a man's wife has been caught in bed with another male person, [...]"
Codex Hammurabi §129 (col. xxviii/R.v), ll. 42-46.

The construct state is not, however, the only strategy for marking genitival relationships in Akkadian nominal phrases. *ša* also functions as a marker of genitival relationships.

(7) *âm* *ša* *aḫ-ī-šu*
barley.ACC.SG ŠA brother.SG-GEN-POSS:3MS
"His brother's barley."
AbB 2: no. 128 l. 5' (Frankena 1966).

(8) [X] *ana* *ṣuḫār-im* *ša* *{Sîn}-ašarēd* *idin*
to boy-GEN.SG ŠA PN give.IMPV
"Give [X] to Sin-ashared's boy."
AbB 2: no. 166 ll. 5-7 (Frankena 1966).

This chapter will consider the properties and analysis of construct-headed relative clauses (henceforth CHRCs) and the implications of this construction in the context of relativisation in general. It is arranged as follows: section 1 gives an overview of the relevant morphological facts of Akkadian nominal inflection and 'state'. Section 2 summarises previous work on construct-headed relative clauses in Akkadian. Section 3 discusses in detail several divergences between *ša*-RCs and CHRCs and restrictions on the structure of CHRCs, including several not previously observed in the literature. Section 4 explores the proposal put forward by Johnson (2005) that Akkadian CHRCs are internally-headed. Section 5 considers in detail the analysis of Akkadian CHRCs in the context of generative approaches to relative clause structure, in light of the facts brought forward in Section 3.

1.1 Nominal State in Akkadian

As the focus of this chapter involves contextually-determined distinctions in the morphological form of Akkadian nouns, typically termed nominal 'states', it is important at this stage to summarise basic Akkadian nominal inflection in order to clarify the nature of these distinctions. We focus here on the relevant properties of and the distinction between the default 'state' and the construct state.

The normal form/'state' of Akkadian nouns in most syntactic environments displays suffixal morphology encoding distinctions of gender (masculine/feminine), number (singular/dual/plural, dual heavily restricted) and case (nominative/accusative/genitive in the singular, nominative/non-nominative in dual

and plural).[3] There is no wholly standard designation of this predominant nominal 'state'; it has been variously termed, for example, the "normal state" (Buccellati 1996), the "free form" (Huehnergard 2000), and the "*status rectus*" (von Soden 1952/1995). For the sake of terminological specificity, *status rectus* (abbrev. SR) is adopted here.

In common with many other Semitic languages, Akkadian nouns also display a distinct form known as the 'construct state', whose typical use, as noted above, is to mark a possessum noun. The Akkadian construct state does not generally display case-marking (though case-marking is preserved in the dual and masculine plural; in the case of the plural the construct is not morphologically distinct from the *status rectus*). The construct maintains distinctions in form marking number and gender.

(9) summarises the basic inflectional paradigm of Akkadian nouns in singular and plural. (10) and (11) provide paradigmatic illustrations of these forms for various masculine and feminine nouns respectively. Some allomorphic variants of the singular construct state forms are shown. The exact environments of these are largely phonologically predictable; the variants *-ø*/*-i* in the masculine and feminine singular constructs are for the most part determined (differently in the respective cases) by the shape of the noun stem, and result from resolutions necessitated by word-final consonant clusters of various kinds. A small set of monosyllabic nouns also take the *-i* suffix (in some cases varying optionally with the zero form). The internal vowel-pattern of some noun stems is also affected by cluster resolution in zero-suffix construct state forms (e.g. *šulm-um* SR / *šulum* CSTR). Other minor variations in suffixal form (e.g. in vowel-final stems) are not dealt with here. As it is not relevant to the examination of relative clauses, the morphological forms of nouns with pronominal possessive suffixes are not mentioned; the relevant aspects of these facts are dealt with in chapter 2.

It should be noted that the 'morpheme' *-ø* in the forms given in the table should not be taken as supposing that a zero-suffix is an exponent of any actual feature or morphosyntactic entity of any kind; it is included merely to indicate explicitly the contrasts between the CS and SR forms.

[3] A slightly richer set of case distinctions applies to some pronouns, which have distinct dative forms.

(9)

			Nom	Acc	Gen
SR	Masc.	Sg.	*-um*	*-am*	*-im*
		Pl.	*-ū*	*-ī*	*-ī*
	Fem.	Sg.	*-(a)t-um*	*-(a)t-am*	*-(a)t-im*
		Pl.	*-āt-um*	*-āt-im*	*-āt-im*
			Nom	Acc	Gen
CSTR	Masc.	Sg.	*-ø / -i*	*-ø / -i*	*-ø / -i*
		Pl.	*-ū*	*-ī*	*-ī*
	Fem.	Sg.	*-(a)t-ø / -t-i*	*-(a)t-ø / -t-i*	*-(a)t-ø / -t-i*
		Pl.	*-āt-ø*	*-āt-ø*	*-āt-ø*

(10)a. *dayyān-um/am/im*
judge-SG.NOM/ACC/GEN

b. *dayyān* *libb-i* (SR *libb-um*) *šar* (SR *šarr-um*)
judge[CSTR.SG] heart-CSTR.SG king[CSTR.SG]

c. *dayyān-ū/ī*
judge-PL.NOM/ACC-GEN (SR or CSTR)

(11)a. *sinniš-t-um/am/im*
woman-FEM.SG-NOM/ACC/GEN

b. *sinniš-t-i* *mār-at* (SR *mār-t-um*)
woman-FEM.SG-CSTR (son/)daughter-FEM.SG[CSTR]

c. *sinniš-āt-um/im*
woman-FEM.PL-NOM/ACC-GEN

d. *sinniš-āt*
woman-FEM.PL[CSTR]

1.2 Prior Work on Akkadian Construct-Headed Relative Clauses

A detailed descriptive examination of the facts surrounding Akkadian relative clauses and *ša*-type possessive constructions was made by Ravn (1941). The majority of Ravn's work is devoted to enumeration and classification of data, but some proposals relative to the structure and nature of the construct state and of *ša* relative clauses are put forward.

Ravn's primary proposal relating to CHRCs is that there is no significant distinction between the construct state followed by a genitive nominal and the construct state followed by a relative clause; both fall within Ravn's broad definition of the semantic function of the element following the construct state as indicating

"possessor or originator", where "the origin can be in an act as well as with a person" (Ravn 1941: 39-40). Although couched in a largely pre-structural view of syntax, Ravn's proposal amounts to an equation of the structures of construct possessives and construct-headed relative clauses in respect of the construct-state noun itself.[4]

Ravn puts forward a similar proposal concerning *ša*: first, that *ša* is not pronominal in either possessive or relative-clause constructions; rather it is a "representative particle", and these constructions form, in Ravn's view, appositional, semantically 'characterisational' adjuncts which merely happen to have nominal and clausal features respectively.

The CHRC was not studied in detail in the Assyriological literature for some decades after Ravn's study. The CHRC has often been taken in summary accounts to be a very simple variant of the *ša*-RC, simply an identical or near-identical kind of relative clause structure in which, for more or less for secondary reasons, the head appears in the construct-state form in the absence of an overt relativiser. So for Huehnergard (2000: 188), a CHRC is one in which "[a]s in English, it is possible for the relative pronoun to be deleted", the head appearing in the construct-state form simply for the same (unclarified) reasons for which this occurs in construct possessive structures. von Soden (1952/1995: §166/268) has little more insight, commenting that any statement of rules describing the distribution of CHRCs as against *ša*-RCs are, at least for the time being, impossible to discover. von Soden's additional comments are limited to observing that CHRCs are usually (but not always) "very short" and that CHRC heads which represent a direct object in the embedded clause are never, unlike the case in *ša*-RCs, matched by a resumptive pronoun, a first hint at what I propose in section 1.3 below is a much more coherent and interesting fact.

A significant strand of discussion of Akkadian relatives has recently focused on the case-inflected Old Akkadian relativiser *šu* (which has disappeared from use by the core OB period in favour of the invariant *ša*), the unusual feature of the syntax of *šu* being apparent case agreement with the head noun, displaying matrix case-marking, rather than with the expected case of the relativised internal constituent. Deutscher (2001, 2002) attempts to lay out a partially new analysis of what he

[4] In this Ravn essentially follows the view of CHRCs earlier put forward in the very brief discussion by Ungnad (1904-5: 59-60) of CHRC data in the Codex Hammurabi.

presumes to be the diachronic development from Old Akkadian *šu* to Old Babylonian and later *ša*, and characterises the agreement peculiarities of *šu* as "dysfunctional" in the context of his arguments concerning diachronic development. Gai (2002) challenges the details of these arguments, essentially by denying that the two relativisers *šu* and *ša* are diachronically related at all. The Old Akkadian *šu* relativisation structure is comparatively poorly understood and, as it belongs to a variety of Akkadian quite distinct from that under consideration in this study, is naturally not directly relevant to the synchronic examination of the Old Babylonian structures undertaken here.[5] It will suffice to comment that both Deutscher and Gai in large part echo Ravn's characterisation of *ša* as some form of particle marking the clause boundary which does not play any role *vis à vis* the relativisation site.

Johnson (2005) has proposed that Akkadian CHRCs are internally-headed, despite the apparent dislocation of the head from the expected position RC-internally, largely on the basis of what Johnson believes to be definiteness or specificity constraints on the heads of CHRCs (Johnson also sees Old Akkadian *šu*-type relatives as a form of internally-headed relative clause, in which the head has been extracted to a focus position at the extreme left edge of the subordinate clause, with *šu* as a form of "resumptive pronoun" occupying the same position as a construct-state head of a CHRC). The details of Johnson's analysis will be discussed in greater detail below, following further examination of the CHRC construction.

Cohen (2008) examines various nominal modifiers in Old Babylonian, including relative clauses. His proposals are in broad terms largely a reproduction of Ravn's: most postnominal modifiers have a similar structure. However, Cohen contends that *ša* is some form of pronoun, itself displaying a construct-state form, and that *ša* relative clauses are essentially in apposition to the preceding noun phrase. This view would lead us to suppose that the internal structure of *ša*- and construct-headed relative clauses should be the same (as in Cohen's view they are both in essence construct-headed). This view will be shown below to be at odds with the actual patterns in the data.

Walter (2007: 189-203) provides, to my knowledge, the only existing attempt at a formal analysis of CHRCs apart from that of Johnson (2005). In the context of a wider study of identity-avoidance phenomena in phonology and syntax, Walter,

[5] The nominative form *šu* (only) is occasionally attested as an archaism in literary OB; it does not occur outside poetic and markedly high-register texts.

drawing on a constraint proposed by Richards (2006) on linearisation under Kayne (1994)'s LCA, proposes to deal with the absence of case-marking in Akkadian construct state forms, in possessive and relative contexts, and the absence of overt determiners associated with the construct state phenomenon in other Semitic languages, in terms of this constraint. In common with most Assyriological accounts of CHRCs, Walter's formal analysis conflates the relevant structural properties of CHRCs and construct-state possessive structures entirely. As already noted, we intend to show in this chapter that such a view is not tenable on empirical grounds. Since Walter's analysis of constructs takes in both possessive and relative variants, we will postpone thorough discussion of Walter's proposals to the following chapter, where they will be dealt with in detail and further difficulties examined in relation to possessive structures.

1.3 Restrictions on the Structure of Construct-Headed Relative Clauses

Despite their superficial similarity, significant underlying divergences in behaviour between the two relativisation strategies can be observed. First, all known examples of CHRCs are interpretable as restrictive, whereas *ša* may clearly form both restrictive and non-restrictive relatives. In particular, *ša* relatives may take proper names as heads (as in e.g. (33) and (36)) and heads otherwise necessitating non-restrictive interpretations (such as *ab-ī-ya* "my father" in (32)); by contrast, there are no known CHRCs headed by proper names or other heads which appear to force non-restrictive interpretation (though it should be noted here that, as we will see, possessives are likely barred within CHRC heads for independent reasons).

Further, it must be noted that a construct state noun invariably stands directly adjacent to the relative clause which follows it, as in (3)-(4) (as does the possessum construct-state noun to the possessor constituent in genitival construct complexes). Characterised simply, this adjacency appears to be enforced at the word level rather than the phrasal level; no other constituents of a nominal phrase, such as adjectives, may intervene. Furthermore, no CHRCs (understood in this case as any relative clause not marked by *ša*) are attested with possessive pronominal suffixes. Thus, no

CHRC along the lines of (12) or (13) is attested, both on the model of (4) repeated below.[6]

(4) ***qīš-t-i*** *ab-um* *i-ddin-ū-šum*
gift-FEM.SG-CSTR father-NOM.SG SBJ:3-give.PRET-SBJV-DAT.3MS
i-leqqē-ma
SBJ:3-take.PRES[SBJ:SG]-CONJ
"He will take the gift that his father gave to him".
Codex Hammurabi §165 (col. xxxiv/R.xi), ll. 44-46.

(12) ***^qīš-t-i*** ***rabī-t(^-am)*** *ab-um*
gift-FEM.SG-CSTR large-FEM.SG(-ACC) father-NOM.SG
i-ddin-ū-šum *i-leqqē-ma*
SBJ:3-give.PRET-SBJV-DAT.3MS SBJ:3-take.PRES[SBJ:SG]-CONJ

(13) ***^qīš-t-a-šu*** *ab-um*
gift-FEM.SG-EPENTH_V-POSS:3ms father-NOM.SG
i-ddin-ū-šum *i-leqqē-ma*
SBJ:3-give.PRET-SBJV-DAT.3MS SBJ:3-take.PRES[SBJ:SG]-CONJ

This is in contrast to the *ša* strategy in both possessive and relative contexts. In *ša*-RCs, complex noun phrases are permitted as the head, such as those including postnominal elements such as adjectives, as in (14)-(15), and demonstratives, as in (16),[7] as well as nouns with suffixal possessive prounouns, both linearly separated from the left edge of the relative clause as in (15), and adjacent as in (17). *ša*-RCs can also be headed by other types of complex structures, such as conjoined nouns as in (18). All such structures are unknown in the context of CHRCs.

(14) *ṭupp-um* *seḫt-um* *ša*
tablet-NOM.SG erroneous-NOM.SG ŠA
i-'li-am *ḫepi*
SBJ:3-arise.PRET[SBJ:SG]-VENT break[STAT.SBJ:3ms]
"The erroneous tablet that turned up is broken."
Al-Rawi and Dalley (2000: no. 26, ll. 13-15).

[6] The symbol ^ preceding examples has been adopted to mark unattested structures, as noted in section 0.3 above. As with all the other restrictions outlined in this section, study of an extensive amount of core OB data has not shown any examples of CHRCs which violate this observation. However, as discussed in ch. 0, in the unfortunate absence of native speaker judgements, we can add here the contrastive distributional evidence arising from the fact that *ša* relative clauses regularly display the properties which appear to be unavailable to CHRCs. This is repeated with remarkable consistency across all the relevant restrictions outlined in this section. Furthermore, as will be partly set out in this section and developed further later in this chapter, these restrictions seem to fall along patterns which, when taken alongside aspects of the contrastive evidence of *ša*-RCs and broader theoretical considerations, can be accounted for together as the multiple visible effects of much simpler underlying structural properties. In light of these considerations taken as a whole I consider the description given here very likely to be sound, though of course the subsequent discovery of contrary evidence on the basis of additional data cannot be entirely ruled out.

[7] As will be seen from the examples, the head of *ša*-RCs is marked with the case appropriate to its position in the matrix clause; adjectives and demonstratives, which also regularly display case-marking, are case-marked as normal for OB nominals in general.

(15) *našpar-ī* *dann-am* *lā* *anīḫ-am*
envoy-POSS:1SG strong-ACC.SG NEG tired-ACC.SG
ša *bibil* *libb-ī-ya* *ana* *ašr-im*
ŠA desire[CSTR] heart-GEN-POSS:1SG to place-GEN.SG
šakān-am *mud-û*
put.INF-ACC aware-STAT.SBJ:3ms.SBJV
"My strong, untiring envoy who knows how to achieve what I want" ("put in place the desire of my heart").
RIME 4: Samsu-iluna E4.3.7.7, ll. 31-35 (Frayne 1990: 386).

(16) *awā-t-um* *annī-t-um* *ša* *tē-puš-u*
word-FEM-NOM this-FEM.SG-NOM ŠA SBJ:2-do.PRET-SBJV
ul *naṭ-ât*
NEG (be_)proper-STAT.SBJ:3fs
"This thing that you did is not right."
AbB 2: no. 43, l. 20 (Frankena 1966).

(17) *aššu* *ša* *la'b-um*
wife-FEM.SG-POSS:3ms ŠA disease_name-NOM.SG
i-ṣbat-u *ul* *i-zzib-ši*
SBJ:3-sieze.PRET-SBJV NEG SBJ:3-leave.PRES-ACC.3fs
"He will not leave the wife of his that the *la'bum*-disease gripped."
Codex Hammurabi §148 (col. xxxi/r.viii), ll. 75-81.

(18) *šum-i* *il-ī-ka* *u* *mutakkil-ī-ka*
name-CSTR.SG god-GEN-POSS:2ms and encourager-GEN-POSS:2ms
ša *kâta* *u* *aḫ-ā-ka* *ašariš*
ŠA you.MASC.ACC/GEN and brother.SG-ACC-POSS:2ms there
u-š-ēšib-u *l-i-blī*
SBJ:3-CAUS-dwell.PRET-SBJV PREC-SBJ:3-be_extinguished[SBJ:SG].INTERROG
"Might the name of your god and sponsor, who settled you and your brother there, be extinguished?"
AbB 14: no. 40, ll. 22-23 (Veenhof 2005).

These divergences between the two relativisation strategies have long been recognised (e.g. Ravn 1941: 56-60). Further differences have not received explicit notice in the descriptive literature. However, examination of the data appears to suggest a number of additional restrictions on the structure of CHRCs relative to *ša*-type relative clauses. As will be seen below, these restrictions seem when viewed together to form a cohesive set of properties falling out from one underlying restriction.

In addition to the adjacency requirement of the construct-state head, there are further restrictions on the structure of the CHRC head which are not easily

explicable in terms of adjacency. As in other Semitic languages, the construct-state noun in a construct-state possessive complex may be modified by an adjective. This adjective follows the construct complex as a whole, rather than occupying its more typical immediate postnominal position. In Akkadian, this adjective does not display construct-state morphology itself, instead appearing in the *status rectus*, as shown in (19)-(20) (by contrast, where possessum nominals in *ša*-type possessives appear with adjectives, the adjective maintains adjacency to the noun, with *ša* following both, as in (21)-(23)). In contrast to construct-state possessives, no CHRC head noun appears to have any kind of complex structure; only single nouns in the construct state appear, without modifiers or any other visible NP/DP constituent present in any position, whether adjacent to the overt position of the head, in the relativisation site, or following the entire head/relative clause complex (cf. (24)):

(19) *šumma awīl-um {mār} awīl-im*
if man-NOM.SG {son([CSTR.SG])} man-GEN.SG
ṣeḫr-am i-š<ta>riq
small-ACC.SG SBJ:3-<PERF>steal[SBJ:SG]
"If a man has stolen the young son of a(nother) man".
Codex Hammurabi §14 (col. viii), ll. 25-28.

(20) *ṭēm {kir-(îm)} šuāti*
news[CSTR.SG] {orchard-(GEN.SG)} that.ACC/GEN.SG
gamr-am pān-am
complete-ACC.SG front-ACC.SG
šu-rši-am-ma šupr-am
CAUS-acquire.IMPV[SBJ:2ms]-VENT-CONJ send.IMPV-DAT.1SG
"Work out the complete news of that orchard and send it to me."
[work out/clarify = 'cause to acquire a front/surface']
AbB 4: no. 13, ll. 15-17 (Kraus 1968).

(21) *ūm-ū gamr-ūt-um ša {nakr-(im)}*
day-MASC.NOM.PL complete-MASC.PL-NOM ŠA {enemy-(GEN.SG)}
"The complete(d) days of the enemy." [isolated omen apodosis]
RA 27: 149, 40, cited in CAD G 38 s.v. *gamru* b

(22) *īnu Enlil {šarr-(um)} ša il-ī*
when PN {king-(NOM.SG)} ŠA god-MASC.PL.ACC/GEN
bēl-um rabi-um *ša māt-āt-im*
master-NOM.SG large-NOM.SG ŠA country-FEM.PL-ACC/GEN
ana {Šamaš} in būn-ī-šu
to PN in countenance-GEN-POSS:3ms
damq-ūt-im i-p-pals-u
good-MASC.PL-ACC/GEN SBJ:3-INCEP-look.PRET-SBJV
"When Enlil, king of the gods, great lord of the lands, looked on Šamaš with his fair countenance, […]"
RIME 4: Samsu-iluna E4.3.7.3, ll. 1-7 (Frayne 1990: 376)

(23) *šumma* *{mār-(um)}* ***arn-am*** ***kabt-am*** *ša*
if {son-(NOM.SG)} crime-ACC.SG heavy-ACC.SG ŠA
ina *apl-ū-t-im* *nasāḫ-im* *lā*
in heir-ABSTR-FEM.SG-GEN remove.INF-GEN.SG NEG
u-bl-am *ab-um*
SBJ:3-bring.PRET[SBJ:SG]-VENT father-NOM.SG
{mār-(ā)}-šu *ina* *apl-ū-t-im*
{son-(ACC.SG)}-POSS:3ms in heir-ABSTR-FEM.SG-GEN
ul *i-nassaḫ*
NEG SBJ:3-remove.PRES[SBJ:SG]
"If the son did not commit a serious crime of disinheritance ["removal from heir-hood"], the father will not disinherit his son."
Codex Hammurabi §168 (col. xxv/xii), ll. 18-24.

(24) ***qiš-t-i*** (^***rabī-t***(^***-am***)) *ab-um*
gift-FEM.SG-CSTR (large-FEM.SG(-ACC)) father-NOM.SG
(^***rabī-t***(^***-am***)) *i-ddin-ū-šum*
(large-FEM.SG(-ACC)) SBJ:3-give.PAST-SBJV-DAT.3MS
(^***rabī-t***(^***-am***)) *i-leqqē-ma*
(large-FEM.SG(-ACC)) SBJ:3-take.PRES[SBJ:SG]-CONJ

In addition to the restrictions on the structure of the CHRC head itself, the relativisation possibilities of known CHRCs are substantially narrower than those of *ša*-RCs: only subjects, as in (25)-(26) (cf. also (52) below), and objects, as in (27)-(29), are known to be relativised in CHRCs. This refers, naturally, to the role of the head internal to the relative clause. We will discuss at the end of this section the possibility that there is a restriction on CHRC-containing nominals functioning as matrix subjects. Otherwise they appear in a variety of roles in the matrix clause, including, for example, as adverbial accusatives, as in (25), and as objects of prepositions, as in (27).

(25) *{ana}* *{ūm}* *{ebūr(-im)}* *mahīr*
to {day([CSTR.SG])} {harvest-(GEN.SG)} price[CSTR.SG]
i-llak-u *âm* *{(i)-maddad}*
SBJ:3-go.PRES-SBJV barley.ACC.SG {(SBJ:3)-measure.PRES([SBJ:SG])}
"On harvest-day he will portion out barley at the going rate" ("the price that goes" = CHRC).
Edzard (1970: no. 4, ll. 7-9).

(26) *aran* *šum-ni* *damq-am* *ina*
crime[CSTR.SG] name-POSS:1PL good-ACC.SG in
{āl-(ī)}-ni *u-massak-u* *u*
{town-(GEN)}-POSS:1PL SBJ:3-(become_)bad.CAUS-SBJV also
anāku *a-mašši*
I.NOM SBJ:1SG-forget.PRES
"I will also forget the crime that is worsening our good name in our town."[8]
AbB 14: no. 29, ll. 38-40 (Veenhof 2005).

(27) *ana* *awāt* *ab-ū-šunu* *Enlil*
to word[CSTR] father-NOM-POSS:3MPL PN
i-qb-ū-šunūšim *libba-šunu* *rīš-iš*
SBJ:3-speak.PRET-SBJV-DAT.3MPL heart-POSS:3MPL joyful-ADV
i-ḫd-û-ma
SBJ:3-become_happy.PRET-SBJ:3MPL-CONJ
"Their hearts grew joyfully happy at the words their father Enlil spoke to them."
RIME 4: Samsu-iluna E4.3.7.7, ll. 51-55 (Frayne 1990: 386).

(28) *ṭēm* *bēl-ī* *i-šappar-am*
news[CSTR.SG] master-POSS:1SG SBJ:3-send.PRES-DAT.1SG
a-šappar-ak-kum
SBJ:1SG-send.PRES-VENT-DAT.2SG
"I will send you the news my master sends me."[9]
AbB 8: no. 11, ll. 11-12 (Cagni 1980).

[8] Cohen (2006: 552) interprets this CHRC as having a gapped oblique argument ("the crime by which he dishonours our good name [...]"). This interpretation does not seem consistent with the syntax, as a prepositional argument would probably be expected. Veenhof's (2005: 25) translation does not favour a CHRC interpretation at all ("the guilt of besmirching our good name [...]"), apparently adopting a quasi-infinitival view of the construction, which is inconsistent with the finite-subjuntive marking of the verb, which would appear to securely indicate a CHRC interpretation. von Soden (1952/1995: §165/268; similarly Ravn 1941: 71) thinks this *is* a CHRC, but assumes that the subject of *umassaku* is a contextual human referent ("*dass er unseren guten Namen […] schlecht macht*") and that *aran* has no role inside the relative clause; this, too, seems both highly unlikely and an entirely unnecessary assumption.

[9] The letter from which this example derives provides an example of a close contrast between a CHRC, shown in (28), which has a minimal noun head, and a *ša*-RC with a phrasally complex head, comprising a construct possessive complex and appositional modifier:

(i) *aššum* *ṭēm* *Igmil-{Sîn}* *{mār}* *Kukši[kada]*
about news[CSTR.SG] PN {son([CSTR.SG])} PN
ša *ta-špur-am*
ŠA SBJ:2-send.PRET[SBJ:SG]-DAT.1SG
"Abour the news of Igmil-Sin, Kukshikada's son, which you sent me."
AbB 8: no. 11, ll. 5-6 (Cagni 1980).

(29) *bīt* *ana* *mār-ū-t-im* *ē-rub-u*
house[CSTR] to son-ABSTR-FEM.SG-GEN SBJ:1SG-enter.PRET-SBJV
ana *ṣīt* *{ekall-(im)}*
to lease[CSTR] {palace-(GEN.SG)}
u-š-<t>ēṣ-û
SBJ:3-CAUS-<PERF>be_leased-SBJ:MPL
"They have rented out on a palace lease the house that I entered as a(n adopted) son."
AbB 2: no. 131, ll. 11-12 (Frankena 1966).

This leads us to an examination of the form of the relativisation site in *ša*-RCs. As in many Semitic languages, resumptive pronouns have a wide distribution in Akkadian (*ša*-type) relative clauses. *ša*-RCs follow a pattern common across the Semitic family with regard to resumptive distribution: resumptive pronouns do not occur as the highest subject of the relative clause,[10] but are found in all other relativised functions. They are optional as the highest object (note that non-nominative pronouns in Akkadian are generally suffixal in form; resumptive pronominal suffixes are shown in bold type in the examples below). (30)-(31), showing variations in the form of a *ša*-RC which begins numerous OB letters, illustrate the optionality in the use of object resumptives in restrictive *ša* relative clauses. (32) and (33) show versions of the same formula with non-restrictive *ša*-RCs containing an object resumptive and gap respectively.

(30) *ana* *awīl-im* *ša* *{Marduk}*
to man-GEN.SG ŠA PN
*u-ballaṭ-ū-**šu*** *qibī-ma*
SBJ:3-be_alive.PRES.CAUS-SBJV-**ACC.3MS** speak.IMPV-CONJ
"Speak to the man that Marduk keeps alive." (resumptive)
AbB 2: no. 92, ll. 1-2 (Frankena 1966).

(31) *ana* *awīl-im* *ša* *{Marduk}*
to man-GEN.SG ŠA PN
u-ballaṭ-u *qibī-ma*
SBJ:3-be_alive.PRES.CAUS-SBJV speak.IMPV-CONJ
"Speak to the man that Marduk keeps alive." (gap)
AbB 1: no. 10, ll. 1-2 (Kraus 1964).

[10] On the "Highest Subject Restriction" on resumptive pronouns as a general phenomenon, see e.g. McCloskey (1990); Shlonsky (1992). Andrew Radford (p.c.) suggests that, since null object pronouns are possible in Akkadian, gaps in subject and object relativisation in *ša*-RCs might be viewed as resumption by null pronoun, providing an avenue for explaining this particular distribution of resumptives (this, he acknowledges, would complicate any attempt to explain the Highest Subject Restriction). It is clear, however, that we cannot make use of this parallel in Akkadian cross-linguistically, since it does not hold in other languages which share the same distribution of resumptive pronouns. Thus Arabic, amongst others, has the same resumption pattern, with optional resumption of objects, but does not have productive null objects in general; the same pattern of resumptive distribution is found in Irish, which does not have null objects or generalised null subjects.

(32) *ana* *ab-ī-ya* *ša* *{Marduk}*
to father-GEN-POSS:1SG ŠA PN
*u-ballaṭ-ū-**šu*** *qibī-ma*
SBJ:3-be_alive.PRES.CAUS-SBJV-**ACC.3MS** speak.IMPV-CONJ
"Speak to my father, whom Marduk keeps alive". (resumptive)
AbB 2: no. 159 ll. 1-2 (Frankena 1966).

(33) *ana* *Ibbi-{Sîn}* *ša* *{Marduk}*
to PN ŠA PN
u-ballaṭ-u *qibī-ma*
SBJ:3-be_alive.PRES.CAUS-SBJV speak.IMPV-CONJ
"Speak to Ibbi-Sîn, whom Marduk keeps alive." (gap)
AbB 7: no. 30, ll. 1-2 (Kraus 1977).

Resumptive pronouns are always present in all other functional positions, i.e. those lower than objects on the well-known functional Accessibility Hierarchy originated by Keenan and Comrie (1977). Dative resumptives are shown in (34)-(35) below; resumptives in genitival positions are exemplified in (36)-(38), as well as in (2) above.

(34) *{rē'-(ûm)}* *ša* *{lī-āt-(um)}* *ū lū*
{shepherd-(NOM.SG)} ŠA {cow-FEM.PL-(NOM)} or
{ṣēn-(um)} *ana* *re'-îm*
{sheep-(NOM.SG)} to herd.INF-GEN.SG
*i-n-nadn-ū-**šum***
SBJ:3-PASS-give.PRET-SBJV-**DAT.3MS**
"A shepherd to whom cows or sheep were given to herd."
Codex Hammurabi §265 (col. xlv/R.xxii), ll. 61-65.

(35) *{ugbab-(t-um)}* *{nadī-(t-um)}* *ū lū*
{priestess-(FEM.SG-NOM)} {'nun'-(FEM.SG-NOM)} or
{sekr-et-um} *ša* *ab-ū-ša*
{'devotee'-(FEM.SG-NOM)} ŠA father.SG-NOM-POSS:3fs
šerik-t-am *i-šruk-ū-**šim***
dowry-FEM.SG-ACC SBJ:3-bestow.PRET-SBJV-**DAT.3fs**
ṭupp-am *i-šṭur-ū-**šim***
tablet-ACC.SG SBJ:3-write.PRET-SBJV-**DAT.3fs**
"If (there is) a priestess, nun or female devotee[11] to whom her father has given a dowry,[12] to/for whom he wrote a tablet, […]"
Codex Hammurabi §178 (xxxvii/r.xiv), ll. 61-67.

[11] Fairly arbitrary translations of nouns denoting holders of several classes of religious offices.
[12] Note that although in the first clause of the RC the resumptive could be the genitive *-ša*, the dative *-šim* must be the resumptive in the second clause.

(36) *aššum* {*nār*} {Ningirsu-ḫegal} *ša*
about {canal([CSTR])} PlN ŠA
bēl-ī *heriā-**ša*** *i-qb-û*
master-POSS:1SG digging-**POSS:3FS** SBJ:3-speak.PRET-SBJV
"About the Ningirsu-hegal canal, the digging of which my master ordered."
AbB 2: no. 147 ll. 3-4 (Frankena 1966)

(37) *{šarr-(um)}* *ša* *qibī-s-**su*** *itti*
{king-(NOM.SG)} ŠA speech-FEM.SG-POSS:3ms with
{Šamaš} *u* *Ayya* *magr-at*
PN and PN agree-STAT.SBJ:3fs
"The king whose speech is in agreement with Šamaš and Ayya."
RIME 4: Samsu-iluna E4.3.7.3, ll. 69-71 (Frayne 1990: 377).

(38) *{āl-(um)}* *u* *rabiān-um* *ša* *ina*
{city-(NOM.SG)} and mayor-NOM.SG ŠA in
*erṣ-et-ī-**šunu*** *u* *pāṭ-ī-**šunu***
earth-FEM.SG-GEN-POSS:3mpl and domain-GEN-POSS:3mpl
ḫubt-um *i-ḫ-ḫabt-u*
plundered_property-NOM.SG SBJ:3-PASS-plunder.PRET-SBJV
mimmā-šu *ḫalq-am* *i-riab-ū-šum*
anything-POSS:3ms lost-ACC.SG SBJ:3-replace.PRES-SBJ:Mpl-DAT.3ms
"The city and the mayor in whose territory and whose domain the plundered property was plundered will replace for him anything lost of his."
Codex Hammurabi §23 (col. ix.), ll. 37-45.

Unlike *ša*-RCs, objects are always gapped in CHRCs, a fact noted by von Soden (1952/1995: §166/268). In addition to this, however, what has not been explicitly observed before is that relativisation of constituents lower on the functional hierarchy than objects is entirely unknown in CHRCs, despite being widespread in *ša*-RCs, especially in the case of genitival internal constituents. This correlates exactly with the absence of resumptive pronouns from CHRCs. That is, the relativisation site in construct-headed relative clauses is restricted to subject or object position, which are the only positions in a relative clause which may be gapped.

It should be noted that examples such as (39) and (40) are not counterexamples to this observation, as the verbs in question are regularly capable of taking accusative-marked objects, as shown in (41)-(42).

(39) *harrān* *i-llik-am* *ul* *kušīr-um*
journey.CSTR SBJ:3-go.PRET[SBJ:sg]-VENT NEG success-NOM.SG
mād-iš *š-uzzuq*
much-ADV CAUS-(become_)annoyed[STAT.SBJ:3ms]
"The journey he went on was not a success. He is very annoyed."
AbB 1: no. 46, l. 24 (Kraus 1964).

(40) *ištēn* *kalūm-um* *ezib* *lā* *yâti* *ina*
one lamb-NOM.SG except NEG me.ACC in
āl *wašb-āku* *ul* *i-bašši*
city[CSTR.SG] dwell-STAT.SBJ:1sg NEG SBJ:3-exist.PRES[SBJ:SG]
"There is not a single lamb, not only for me, (but) in the city I live in."
AbB 14: no. 77, ll. 16-19 (Veenhof 2005).

(41) *šumma* *ḫarrān-am* *ina* *alāk-ī-šu*
if journey-ACC.SG in go.INF-GEN-POSS:3ms
nakr-um *mimma* *ša* *naš-û*
enemy-NOM.SG anything ŠA bear-STAT.SBJ:3ms.SBJV
u-š-ta-ddī-šu
SBJ:3-CAUS-PERF-throw[SBJ:SG]-ACC.3ms
"If, during his going on a journey, an enemy has made him drop whatever he was carrying […]"
Codex Hammurabi §103 (col. xxix/r.i), ll. 24-28.

(42) *u* *šumma* *Nuratum* *āl-am* *wašib*
and if PN city-ACC.SG dwell[STAT.SBJ:3ms]
"And if Nuratum is resident in the city […]"
Al-Rawi and Dalley (2000: no. 95, l. 36).

Perhaps the most important observation with regard to the structure of CHRCs which has not previously been identified regards apparent restrictions on the form of CHRC head nouns themselves (as opposed to the restrictions on the form of their phrasal projections, already discussed). Singular head nouns of both genders are quite common in CHRCs; plurals of any kind are very rare, although at least two possible examples of feminine plural antecedents are known. The second of these is significant for additional reasons, and will be discussed in another context as (56) below. The head of the first, which is given in (43), is logographically written and somewhat uncertain. Note that the plurality of the head is explicitly represented in writing by a separate non-phonetic sign, but that the logographic writing does not otherwise indicate the morphological form of the noun, including whether it is a case-marked SR form or a construct-state form. In the CHRC interpretation the gap is the subject of the embedded clause, the syntactic feminine-plurality of the head thus being further confirmed by verbal subject agreement.

(43) *aššum* {*šīp-āt*} *maḫrī-ka*
about {wool-FEM.PL([CSTR])} in_the_presence_of-POSS:2MS
i-bašši-ā [...]
SBJ:3-exist.PRES-SBJ:FPL
"About the wool which there is in your possession, ..."
AbB 2: no. 152, ll. 17-18 (Frankena 1966).

Presented in (43) is one possible interpretation of the example in question, which is potentially ambiguous. *aššum* functions both as a preposition and as a subordinating conjunction. It is thus possible that the structure is not PP[*aššum* {*šīp-āt*} RC[...]], but CP[*aššum* TP[{*šīp-āt-*(*um*)} ... *ibaššiā*]], where *šīp-āt-*(*um*) is clause-internal subject of a (non-relative) embedded clause, with an interpretation along the lines of, "Because there is wool in your possession, ...". The latter is the interpretation adopted by Frankena (1966: 99), against e.g. Ravn (1941: 71). The broader context is not helpful in clarifying this ambiguity.

Even if the CHRC interpretation is correct, however, this is not a simple case of plurality. The noun *šīp-āt-* "wool" is only attested as a feminine plural, which is probably its only form. Given the apparent rarity of any plural head in the context of the CHRC construction, it is notable that (assuming the CHRC interpretation) one of the only two known possible feminine plural CHRC heads is a *pluralia tantum* noun.[13] This may suggest that plurality as a structural/syntactic feature is not available to CHRC heads, but that this (feminine) plural violates this constraint because it may derive its plurality lexically rather than syntactically. The complicated issue of feminine plurals will be put to one side for the moment; we will return to it briefly in the discussion of (56). We should note here that feminine plurals occur normally in construct-state possessive structures, as in (44)-(45).

[13] One other hypothetical possibility for the occurrence of feminine plural CHRC heads lies in the frequent cases of CHRCs headed by *awāt*, typically glossed as "word"; the CHRC cases in general clearly have a pluralic signification denoting an act of speech longer than a single word. The singular and plural forms of *awāt-* are, at best, distinguished by vowel length or quality, and perhaps not even by this (the singular and plural forms are generally given in normalised transcription as *awāt-* and *awât-* respectively, i.e. *aw*V + suffixal feminine morpheme *-t/-āt*, singular and plural respectively). As such it is technically possible that a feminine plural form orthographically indistinguishable from the singular underlies some CHRC cases. However, the plural forms of *awāt-* are widely marked explicitly in writing via an additional vowel sign (also, at least in non-OB varieties, via a non-phonetic, quasi-logographic plural marker); furthermore, it clearly has a broader semantic range of reference even in the singular, encompassing "utterances" of any length, as well as other senses loosely connected with speech (for exemplification of plural forms and clear cases of the wider senses see CAD A2 28ff. s.v. *amatu* A; see esp. sect. 5b for some explicit OB plural writings. For a case of a very general meaning see also (16) above).

(44) *šattišam-ma* *ina* *ebūr-im* *ûm*
every_year-EMPH in harvest-GEN.SG barley.NOM.SG
kašit-t-um *u* ***ini-āt***
arrived?-FEM.SG-NOM and ox_payment-FEM.PL[CSTR]
{alp-(ī)}-ya ***šarq-āt-um*** *ina*
ox-MASC.PL.ACC/GEN-POSS:1sg stolen-FEM.PL-NOM in
qāt-ī-šu *u* *ina* *qāt-i*
hand-GEN-POSS:3ms and in hand-CSTR
{mār-(ī)}-šu *i-kaššad-ū*
{son-(MASC.PL.ACC/GEN)}-POSS:3ms SBJ:3-arrive.PRES-SBJ:Mpl
"*Every year* delivered (?) barley and my oxen's stolen ox-payments end up in his possession and in the possession of his sons."
AbB 14: no. 54, ll. 5-8 (Veenhof 2005).

(45) *ṣib-āt* *{kasp-(im)}* *mala*
thing_added-FEM.PL[CSTR] {silver-(GEN.SG)} as_much_as
i-lq-û *i-saddar-ma*
SBJ:3-take.PRET-SBJV SBJ:3-arrange.PRES[SBJ:SG]-CONJ
"He will sort out the interest charges of as much silver as he took."
Codex Hammurabi §100 (col. xxiv/r.i), ll. 1-3.

Completely absent, however, from known data are masculine plural forms as heads of CHRCs (as well as duals, which are quite heavily restricted in any case). These are the overtly cased forms of the construct state in Old Babylonian, and their absence is thus striking. In contrast to this, masculine plural construct-state possessum nouns in genitival construct complexes are possible. Some examples of masculine plural construct-state nouns in possessive structures are given below; see (46)-(48) for the nominative form and (49)-(51) for the accusative/genitive form.

(46) *ana* *warkī-t* *ūm-im* *Buzāzum*
to future-FEM.SG[CSTR] day-GEN.SG PN
Lamassatum *u* ***mār-ū*** ***Buzāzum***
PN and son-MASC.PL.NOM PN
ul *i-raggam-ū*
NEG SBJ:3-make_a_claim.PRES-SBJ:3mpl
"Buzāzum, Lamassatum, and the sons/children of Buzāzum will not raise a claim at any time in the future."
VAB 5: no. 32, ll. 15-18 (Schorr 1913).

(47) [X] *itti* *Awīl-{Sîn}* *{dayyān-(im)}* *{mār}*
with PN {judge-(GEN.SG)} {son([CSTR.SG])
{Sîn}-bēl-aplim *u* *{Sîn}-imguranni* *{mār}*
PN and PN {son([CSTR.SG])
{Il}šu-ibni ***bēl-ū*** ***{bīt-(im)}***
PN owner-MASC.PL.NOM {house-(GEN.SG)}
{Sîn}-iqīšam *{ṭupšarr-(um)}* *ana* *[waš]b-ū-t-im*
PN {scribe-(NOM.SG) to dwell-ABSTR-FEM.SG-GEN
ana *{kiṣr-(im)}* *ana* {MU.1.KAM} *u-š-ēṣi*
to {rent-(GEN.SG)} to {one year} SBJ:3-CAUS-
go_out.PRET[SBJ:SG]
"Sîn-iqīšam the scribe rented [a house …] from Awīl-Sîn the judge, son of Sîn-bēl-aplim, and Sîn-imguranni, son of Ilšu-ibni, the owners of the house, for one year, to live in."
VAB 5: no. 145, ll. 1-9 (Schorr 1913).

(48) ***kann-ū*** ***gamar-t-im*** *ina* *{abull-(im)}*
band-MASC.PL.NOM completion-FEM.SG-GEN in {gate-(GEN.SG)}
i-t-ta-ḫlal-ū
SBJ:3-PASS-PERF-hang_up-SBJ:Mpl
"[If X and] the banners of completion[14] have been hung up on the gate, […]"
Codex Hammurabi §58 (col. xv), ll. 68-70.

(49) *awīl-ē* ***ward-ī*** ***šarr-im***
man-MASC.PL.ACC/GEN slave-MASC.PL.ACC/GEN king-GEN.SG
ana *šīb-ū-t-im* *a-škun-ak-kum*
to witness-ABSTR-FEM.SG-GEN SBJ:1sg-put.PRET-VENT-DAT.2ms
"I have provided to you the men, servants of the king, to be witnesses."
AbB 3: no. 52, l. 24 (Frankena 1968).

(50) ***aḫḫ-ī*** ***{Sîn}-rīm-{Ur-(im)}*** *ša*
brother-MASC.PL.ACC/GEN PN ŠA
{alp-(ī)}-ka *našû* *šāt-qātim*
{ox}-MASC.PL.ACC/GEN-POSS:2ms bear-STAT.SBJ:3mpl handcuffs
i-mḫaṣ-ū-ma
SBJ:3-strike-SBJ:3mpl-CONJ
"They put Sîn-rīm-Urim's brothers, who were in possession of your oxen, in handcuffs."
AbB 14: no. 55, ll. 22-23 (Veenhof 2005).

[14] From context, apparently a formal signal of the end of a pasturing season. *kannum* with the meaning 'band' or 'rope' has a wide occurrence, but the particular phrase *kannū gamartim* seems to occur only in CH; cf. CAD K 156-7 s.v. *kannu* B.

(51) ***nīš-ī*** ***{māt}*** ***Šumer-im***
people-MASC!.PL.NOM {country([CSTR.SG]) PlN-GEN.SG
u ***Akkad-im*** *šub-at* *nēḫ-t-im*
and PlN-GEN.SG dwelling_place-FEM.SG.CSTR calm-FEM.SG-GEN
u-š-ēšib
SBJ:3-CAUS-dwell.PRET[SBJ:SG]
"He settled the people[15] of the land of Sumer and Akkad in places of calm."
RIME 4: Samsu-iluna R4.3.7.2, l. 41-44 (Frayne 1990: 374).

Overtly case-marked masculine plural nouns freely occur as heads of *ša*-RCs, as illustrated in (2) above, repeated below, showing a nominative-marked masculine plural head, and in (52) (a nearby example in the same text), which shows an accusative(/genitive)-marked masculine plural head (note also the presence of a separate CHRC in immediate proximity to this head); (53) is an example of the formula previously seen in (30)-(33) with a masculine plural *ša*-RC head.

(2) *šīb-ū* *ša* *maḫrī-šunu*
witness-MASC.NOM.PL ŠA in_the_presence_of-POSS:3MPL
šīm-um *i-š-šām-u* [...]
purchase-NOM.SG SBJ:3-PASS-purchase[SBJ:SG]-SBJV
mudûs-sunu *maḫar* *il-im*
knowledge-POSS:3MPL presence[CSTR] god-GEN.SG
i-qabb-û-ma
SBJ:3-speak.PRES-SBJV-CONJ
"The witnesses in whose presence the purchase was made [...] will state what they know in the presence of a god."
Codex Hammurabi §9 (col. vii), ll. 30-37.

(52) *šāyyimān-um* *nādin* *i-ddin-ū-šum*
buyer-NOM.SG seller[CSTR.SG] SBJ:3-sell.PRET-SBJV-DAT.3MS
u *šīb-ī* *ša* *ina*
and witness-MASC.PL.ACC/GEN ŠA in
maḫrī-šunu *i-šām-u*
in_the_presence_of-POSS:3MPL SBJ:3-buy-SBJV
i-t-bal-am
SBJ:3-PERF-bring[SBJ:SG]-VENT
"[If ...] the buyer has brought forth the seller who sold (it)[16] to him (CHRC) and the witnesses in whose presence he bought (it) (*ša*-RC)."
Codex Hammurabi §9 (col. vii), ll. 18-26.

[15] *nīšū* is a noun with plural forms only, which is grammatically feminine, but has masculine morphology. There are equally no known CHRCs headed by the few nouns of this sort which have masculine plural morphology but feminine gender for agreement. In so far as this fact is judged significant, it appears that the case-displaying plural morphology, not the underlying gender, is the relevant factor.
[16] Note that null objects occur frequently in Akkadian.

(53) *ana* *awīl-ē* *ša* {*Marduk*}
to man-MASC.PL.ACC/GEN ŠA PN
u-ballaṭ-ū-šunūti *qibī-ma*
SBJ:3-be_alive.CAUS-SBJV-ACC.3MPL speak.IMPV-CONJ
"Speak to the men that Marduk keeps alive."
AbB 1: no. 14, ll. 1-3 (Kraus 1964).

In addition to the occurrence of overtly cased masculine plural forms, examples of construct-state possessive complexes which are followed by adjectives modifying the construct-state noun demonstrate that nominal phrases whose head noun displays an overtly non-cased construct state form do at some level possess case, as shown in (20), repeated below, where the adjective *gamram*, modifying the construct-state noun *ṭēm*, displays overtly the accusative case which is assigned to the extended nominal phrase of which *ṭēm* is the head noun.

(20) *ṭēm* {*kir-(îm)*} *šuāti*
news[CSTR.SG] {orchard-(GEN.SG)} that.ACC/GEN.SG
gamr-am *pān-am*
complete-ACC.SG front-ACC.SG
šu-rši-am-ma *šupr-am*
CAUS-acquire.IMPV[SBJ:2ms]-VENT-CONJ send.IMPV-DAT.1SG
"Work out the complete news of that orchard and send it to me."
AbB 4: no. 13, ll. 15-17 (Kraus 1968).

It therefore appears that there are significantly stronger restrictions on the structure of CHRCs than on the structure of construct-state possessive complexes. In particular, it seems that a number of features characteristic of the broader structure of NP/DP – case, adjectival modification and demonstratives (and probably other features of extended nominal structures), and perhaps number – are not available to CHRC heads.[17]

[17] The question arises whether case is actually absent or just not phonologically realised. The former seems more likely, given that any element that would show case is excluded in the head or associated position in a CHRC. Thus not only are case-marked modifiers of the head impossible, but also the RC-internal position associated with the head cannot be filled by a resumptive pronoun, which in Akkadian would always show the case of the relativisation site. Furthermore, in the construct-state possessive construction (the subject of ch. 2), the head fails in most instances to manifest case morphology itself, but, unlike the situation with CHRCs, case is clearly present in the extended projection of which the head is an element, such that, for example, adjectives can appear and are case-marked as normal, regardless of the morphological form of the head. The strength of this contrast between a (usually) non-realised case feature in the latter environment of the 'construct state' and the much stronger restrictions on CHRC heads can be taken as further evidence in this direction.

Especially in view of the ambiguity outlined regarding (43), we probably cannot make a fully reliable judgement, on the basis of the known facts concerning plural heads of CHRCs, on the question of the availability of plurality in general to these heads; we shall return briefly to this question in a moment in the discussion of the only other possible example, cited as (56) below. However, it is to be noted that the analysis to be developed later in this chapter is fully in line with such a restriction, though not dependent upon it.

One further potential restriction on CHRCs which has not been commented on before in the literature is to be mentioned here. With one possible, and difficult, exception, which will be discussed in detail in a moment, no CHRC-containing nominal phrase is known to occur as the subject of its (matrix) clause where this clause manifests overt subject agreement (in OB this means, in effect, in the presence of any overt verbal material; the one exception, discussed below, is in null-copula-like nominal predication). This is in contrast to the very frequent occurrence of *ša*-RCs in such contexts; in addition to various such examples already cited, including (2), see (54)-(55) below.

(54) *awīl-um* *ša* *ina* *{kār-(ī)}-šu*
man-NOM.SG ŠA in {embankment-(GEN)}-POSS:3ms
pīt-um *i-p-pet-û* *{âm}*
opening-NOM.SG SBJ:3-PASS-open.PRET-SBJV {barley.(ACC.SG)}
ša *u-ḫalliq-u* *i-riab*
ŠA SBJ:3-become_lost.CAUS-SBJV SBJ:3-replace.PRES[SBJ:SG]
"The man in whose embankment the opening was opened up will replace the barley that it ruined."
Codex Hammurabi §53 (col. xv), ll. 16-20.

(55) *ṭupp-um* *ša* *tu-š-ābil-am*
tablet-NOM.SG ŠA SBJ:2-CAUS-bring.PRET[SBJ.SG]-DAT.1sg
ul *šu-te-ṣbū-ma*
NEG CAUS-PASS-be_overseen?.STAT.SBJ:3ms-CONJ
"The tablet that you had brought to me is/remains unexecuted, [and …]"
Al-Rawi and Dalley (2000: no. 40, ll. 22-23).

Only one example is known to me, from an OB royal inscription, of a CHRC-containing nominal phrase which may be the subject of the higher clause with overt subject agreement (the higher clause is in this case itself a *ša*-RC). Since this example is complex and its syntax presents several interlocking ambiguities, it is cited and discussed at some length here.

(56) *Enlil* *bēl-um* *rabi-um* *ša*
PN master-NOM.SG large-NOM.SG ŠA
qibī-s-su *lā* *u-š<te>pell-u*
speech-FEM.SG-POSS:3ms NEG SBJ:3-<PASS>reverse[SBJ:SG]-SBJV
šīm-at (-āt?) *i-šīm-u*
destiny-FEM.SG[CSTR] (or –FEM.PL[CSTR]?) SBJ:3-decree.PRET-SBJV
lā *u-t<ta>kkar-u*
NEG SBJ:3-<PASS>become_different.CAUS.PRES-SBJV
Zababa *apil-šu* *dann-am* [...] *{Eštar}* [...]
PN heir-POSS:3ms strong-ACC.SG PN
in *būn-ī-šu* *ša* *hedû-t-im*
in countenance-GEN-POSS:3ms ŠA joy-FEM.SG-GEN
i-p-pallis-sunūti-ma
SBJ:3-INCEP-look.PRES[SBJ:SG]-ACC.3mpl-CONJ
"Enlil, the great lord whose command will not be reversed – the destiny that he decreed will not be altered – looked at Zababa, his strong heir, [… epithets of Zababa …] (and) Eštar [… epithets of Eštar …] with his joyful countence, [and …].
RIME 4: Samsu-iluna E4.3.7.7, ll. 14-27 (Frayne 190: 385).

In the translation above I have echoed Frayne, who translates the relevant part of the example as follows:

> "Enlil, great lord, whose utterance cannot be changed – the destiny that he determines cannot be altered – looked […] (Frayne 1990: 385)

The syntactic interpretation of the relevant part of the example is far from clear, however. Frayne takes the segment *šīmat išīmu uttakkaru*, which comprises a CHRC-containing nominal phrase *šīmat išīmu*, and the higher-clause verb *uttakkaru*, to which *šīmat išīmu* is somehow syntactically related, as a parenthetical. It is, first, open to some doubt whether a parenthetical clause of this kind in this context would be marked with the subordination-marking morpheme *-u* (glossed here, as elsewhere, SBJV, i.e. subjunctive, the usual but not universal term in the descriptive literature). If, on the other hand, *šīmat išīmu uttakkaru* is not a parenthetical, but is genuinely the second clause of the *ša*-RC, and the interpretation is maintained that the subject of *uttakkaru* is *šīmat išīmu* (the CHRC-containing noun phrase), the head of the *ša*-RC (*bēlum rabium*, or perhaps *Enlil bēlum rabium*) has no syntactic role inside this second clause of the *ša*-RC, which seems highly surprising. It would seem to be impossible, in the absence of a resumptive pronoun, to take there to be some kind of genitival syntactic relationship between the *ša*-RC head and *šīmat išīmu*, as there is between it and *qibī-s-**su*** in the first clause of the *ša*-RC, where *-su* is a resumptive.

Second, the writing of the CHRC head is ambiguous as to number. It is very unclear in many cases whether the form written *ši-ma-at* is singular (*šīm-at*) or plural (*šīm-āt*). An alternative, clearly singular construct-state form *šim-t-i* occurs, but clearly some occurrences of *ši-ma-at*/*ši-mat* in the data are singular. The singular and plural of *šīmt-um* ("destiny, divine decree") vary more or less freely in certain contexts with very similar interpretations, the plural meaning something like "the order of things" (cf. (57)), the singular usually, but not always, referring to the fate of a particular person or occurrence. Variants of the fixed expression *ana šīmt- alāk-* "to go to (one's) fate, to die" occur with the noun in both singular and plural referring to a single person (cf. CAD Š3 16-17 s.v. *šīmtu* 3 a).

If the CHRC head *ši-ma-at* is in fact plural (*šīm-āt*), this rules out its being the subject of *uttakkaru*, whose subject agreement morphology indicates either a third person singular subject of either masculine or feminine gender, or a third person plural masculine (but not feminine). Of course, if *ši-ma-at* is plural, it is an example of a feminine plural CHRC head (with or without (43) in addition); but, as with (43), this is highly uncertain (in this case, because neither writing nor syntax can distinguish definitively between singular and plural forms). It is not necessary to interpret *ši-ma-at* as a plural in order for any syntactic interpretation of the status of *ši-ma-at išīmu* relative to *uttakkaru* discussed here to be possible.

(57)

nipû-t-um	*ina*	*{bīt}*
debt_hostage-FEM.SG-NOM	in	{house([CSTR.SG])
nēp-î-ša		*ina*
debt_hostage_taker-GEN-POSS:3fs		in
šīm-āt-ī-ša		*i-m<t>ūt*
destiny-FEM.PL-ACC/GEN-POSS:3fs		SBJ:3-<PERF>die[SBJ:SG]

[If X and] "the debt-hostage has died 'by her destinies'[18] in the house of her hostage-taker […]"
Codex Hammurabi §115 (col. xxvi/r.iii), ll. 31-34.

In my view, these difficulties with the parenthetical interpretation, together with the lack of resumption, suggest that that the head of the *ša*-RC (*bēlum rabium*, or perhaps *Enlil bēlum rabium*) is the subject of *uttakkaru*. This view entails that *šīmat išīmu* is an adverbial/adjunct accusative, a frequent phenomenon in Akkadian, here something like an accusative of respect ("whose command will not be reversed,

[18] Meaning 'has died of natural causes'. Contrasts in the following law with 'if […] the debt-hostage has died from beating or maltreatment […]'. I have translated literally, and with *-ša* as 'her', to bring out the syntactic facts, even though it seems clear that the morphologically feminine noun *nipûtum* can refer to males.

who will not be altered as to the destiny/destinies he decreed"). Admittedly, this interpretation as an 'accusative of respect' is also slightly awkward, but certainly no less awkward than the interpretation of the clause as parenthetical, which seems to be the only other tenable interpretation. Neither of these interpretations can be certain, but nonetheless the fact that what is apparently the only known potential example of a CHRC-containing nominal constitutent as subject of the higher clause with overt subject agreement is so uncertain, and easily open to this alternative analysis, is telling.

The situation is complicated, however, because the restriction does not appear to hold where there is no overt subject agreement. Since all finite verbal forms show subject agreement morphology in Akkadian, the only relevant environment for this absence of overt agreement is that of the predication of an SR noun in the nominative, without any overt verb- or tense-like category.[19] The following example, cited already in a different context as (39) and repeated below, suggests that in this case CHRC-containing nominal constituents can act as matrix subjects.

(39) *harrān* *i-llik-am* *ul* *kušīr-um*
journey.CSTR SBJ:3-go.PRET[SBJ:sg]-VENT NEG success-NOM.SG
mād-iš *š-uzzuq*
much-ADV CAUS-(become_)annoyed[STAT.SBJ:3ms]
"The journey he went on was not a success. He is very annoyed."
AbB 1: no. 46, l. 24 (Kraus 1964).

This is the only example in the core OB data known to me in which a CHRC occurs in a matrix subject at all. It is therefore slightly unclear how much weight should be accorded to it, and we must acknowledge the possibility that in this case accidents of attestation could be misleading us. However, if there is a restriction on the appearance of CHRC-containing constituents as matrix subjects (which seems very probable), and this is a correct characterisation of it (which cannot be quite so firmly estabished, but is clearly the best assumption to make about the meaning of

[19] Perhaps also the similar null-copula-like predication of adjectives or other categories, though I have no examples of CHRCs here. As noted in the discussion of nominal and adjectival predication in ch. 3, the predication of adjectives in the SR in OB is much less frequent than that of nouns. If the absence of overt agreement is indeed the relevant factor in the CHRC restriction, one other possible structure in which one might thus expect to CHRC-containing subjects to be possible is in infinitival clauses. I am not aware of any such attestation, but the data on full noun phrase subjects of infinitives is sufficiently sparse that no clear conclusion can be drawn here at present.

the data as it stands), we must count this as another initially puzzling property of the CHRC construction which requires explanation; the analysis which will be developed later in this chapter will provide us with a plausible means to account for this restriction, if it in fact holds, while leaving open an avenue which would allow the analysis to hold without necessarily requiring it to be predicted.

1.4 The Internally-Headed Relative Clause Analysis

1.4.1 IHRCs and CHRCs

We have previously touched upon the proposal of Johnson (2005) that Akkadian CHRCs are internally-headed. We will now consider the nature of this proposal, and its validity, in greater detail.

A canonical internally-headed relative clause (IHRC) head appears overtly as a constituent of the embedded clause, most typically in the expected RC-internal position of (and, if applicable, displaying the expected case of) the relativisation site. Akkadian CHRCs clearly do not conform to this pattern: the head appears at the left edge of the relative clause, not in the expected internal position. Compare the Akkadian CHRC in (28), repeated below, where the expected internal position of the head would be between *bēlī* and *išapparam*, with canonical IHRC structures shown in (58) and (59) (from Korean and Quechua respectively):

(28) *ṭēm* *bēl-ī* *i-šappar-am*
news[CSTR.SG] master-POSS:1SG SBJ:3-send.PRES-DAT.1SG
a-šappar-ak-kum
SBJ:1SG-send.PRES-VENT-DAT.2SG
"I will send you the news my master sends me."
AbB 8: no. 11, ll. 11-12 (Cagni 1980).

(58) *Tom-un* [*sakwa-ka* *cayngpan-wi-ey* *iss-nun* *kes*]*-ul*
Tom-TOP [apple-NOM tray-TOP-LOC exist-PNE kes-]ACC
mekessta
ate
"Tom ate an apple, which was on the tray."
(Korean; Chung and Kim 2003: 43).

(59) [*nuna* *bestya-ta* *ranti-shqa-n*] *alli* *bestya-m*
[man horse-ACC buy-PERFECT-3] good horse- VALIDATOR
ka-rqo-n
be-PAST-3
"The horse that the man bought was a good horse."
(Ancash Quechua; Cole 1987: 277).

Furthermore, as we have seen, CHRC heads appear in the construct state, and, in addition, do not appear in the forms of the construct state which overtly display case. The head of an Akkadian fully canonical IHRC, were such a structure to exist, would presumably appear in the *status rectus*, as would be expected for a nominal argument of a typical clause, and would display case-marking appropriate to its internal position, producing a hypothetical version of (4) along the lines of (60):

(4) *qiš-t-i* *ab-um* *i-ddin-ū-šum*
gift-FEM.SG-CSTR father-NOM.SG SBJ:3-give.PRET-SBJV-DAT.3MS
i-leqqē-ma
SBJ:3-take.PRES[SBJ:SG]-CONJ
"He will take the gift that his father gave to him".
Codex Hammurabi §165 (col. xxxiv/R.xi), ll. 44-46.

(60) $^{\wedge}_{RC}$[*ab-um* *qiš-t-am* *i-ddin-ū-šum*] *i-leqqē-ma*
gift-FEM.SG-ACC

Finally, we may note that it has been observed above that CHRCs are under severe restrictions as regards the form of the head's phrasal structure itself, for example in being unable to take modifying elements such as adjectives. There does not seem to be any sense in which this fact can be derived directly from Johnson's "fronted internal head" analysis. At very least, the restrictions on the form of the relativised noun/phrase in CHRCs cannot be accounted for on the basis of similarities with IHRCs, and would require a separate motivation of some kind.

1.4.2 Definiteness/Specificity

Whilst Johnson admits that Akkadian CHRCs do not in general show the expected properties of IHRCs, he argues that they do display another property observed in IHRC structures in other languages, namely a form of definiteness effect. The view that IHRC heads are necessarily indefinite as regards their RC-internal role originates in Williamson's (1987) observation that Lakhota IHRC heads, in RC-internal position, cannot be marked by a definite determiner or strong quantifier (although the nominalised clause which constitutes the IHRC as a whole may be marked by an external definite determiner):

(61) *Mary* *owįza* *wą* *kağe* *ki* *he* *ophewathų*
Mary quilt a make the DEM I.buy
"I bought the quilt that Mary made."

(62) *Mary owịza ki kağe ki he ophewathụ
Mary quilt the make the DEM I.buy
"I bought the quilt that Mary made." (Williamson 1987: 171)

Johnson explicitly draws a parallel between this type of prohibition on RC-internal definiteness marking in IHRCs and the blocking of determiners appearing on construct state nouns in those Semitic languages that manifest overt determiners (which do not include Akkadian). His claim, therefore, is that the construct state in general is associated with indefiniteness or non-specificity. In this view, the construct-state morphology of the CHRC head in Akkadian is a parallel to the indefinite determiner in (61) (Johnson 2005: 87).

However, this proposal is highly problematic. First, it must be noted that free indefinites in Akkadian (and in Semitic generally) are not indicated by the construct state. Akkadian does not possess overt definiteness marking; free indefinites (i.e. those not involved in construct-state possessives or relatives) generally appear in the *status rectus*. In Classical Arabic, explicit (in)definiteness marking is not available to the construct-state form, which contrasts with free definites and indefinites:

(63) *kitāb-u-n*
book-NOM.SG-INDEF

(64) *al-kitāb-u*
DEF-book-NOM.SG

(65) *kitāb-u* *rajul-i-n*
book-NOM.SG[CSTR] man-GEN.SG-INDEF

(66) *kitāb-u* *r-rajul-i*
book-NOM.SG[CSTR] DEF-man-GEN.SG

We may therefore assume that the construct state is not directly equivalent to an indefiniteness marker *per se*. It has been widely noted that in construct possessives across Semitic, the construct-state head inherits its semantic (in)definiteness from the possessor nominal ("definiteness spreading"; cf. e.g. Borer 1996; Danon 2008; Dobrovie-Sorin 2000). It therefore appears that construct-state nouns in possessive contexts, *contra* Johnson, are not subject to a restriction to

indefiniteness or non-specificity, although they may lack independent definiteness values.[20]

As Johnson himself admits, there is no morphosyntactic encoding of definiteness or specificity in Akkadian. The particular focus of Johnson's argument rests on a few well-known examples of CHRCs in the Codex Hammurabi, in which the head of a CHRC subordinate to a matrix clause which forms a conditional apodosis is discourse-anaphoric to a noun in the protasis[21] and, at the matrix level, thus appears to be definite, but - since the CHRC-containing nominal in these cases acts as a variable of sorts in relation to its real-world interpretation - can in Johnson's view be argued to be, in a somewhat non-standard sense, non-specific, at least in so far as its function in the embedded clause is concerned. The examples cited by Johnson all have logographically-written CHRC heads, as in (67) (cf. Johnson 2005: 91-2), and thus are not ideal; (68) is a similar case without this difficulty:

(67)

šumma	[...]	*{am-(as)}-su*	*ša*
if		{female_slave-(FEM.SG)}-POSS:3ms	ŠA
{mār-(ī)}		*u-ld-u-šum*	*ana*
{son-(GEN.PL)}		SBJ:3-give_birth.PRET-SBJV-DAT.3ms	for
{kasp-(im)}		*i-t<ta>din*	***{kasap}***
{silver-(GEN.SG)		SBJ:3-<PERF>give[SBJ:SG]	{silver([CSTR.SG])
{tamkār-(um)}		***i-šqul-u***	*bēl*
{trader-(NOM.SG)}		SBJ:3-pay.PRET-SBJV	master[CSTR.SG]
{am-t-(im)}		*i-šaqqal-ma*	
{female_slave-FEM.SG-(GEN)}		SBJ:3-pay.PRES[SBJ:SG]-CONJ	

"If [...] he has sold ("given for silver") a female slave of his who bore him children, the silver that the trader paid, the owner of the female slave will (re)pay, [...]"

Codex Hammurabi §119, col. xxvi/r.iii, l. 74 – col. xxvii/r.iv, l. 2.

[20] For an alternative view to the definiteness-spreading analysis, taking the position that all construct nouns denote a unique/maximal referent, and thus are necessarily definite, see Heller (2002); Danon (2001) maintains an intermediate position on the existence of definiteness spreading, advocating spread of a purely syntactic definiteness feature proposed to be not entirely parallel to semantic definiteness.

[21] In the simplest cases. There are further examples, as can be seen in Codex Hammurabi §3 and §232 (the latter considered by Johnson 2005: 92), in which the specific noun which occurs as a CHRC head does not occur in the protasis, but in which the CHRC head is alleged by Johnson to refer in some sense to an implied participant in a proposition in the protasis. This fact only adds to the vague and problematic semantic characterisation given by Johnson to this dubiously significant set of contexts, which in addition is not universally applicable to CHRCs even in the Codex Hammurabi (cf. §148).

(68)

šumma	*dayyān-um*	***dīn-am***		
if	judge-NOM.SG	judgement-ACC.SG		
i-dīn		[...]	*warkānum-ma*	*dīn-šu*
SBJ:3-judge.PRET[SBJ:SG]			later-EMPH	judgement-POSS:3ms
ī-t-ene		*dayyān-am*	*šuāti*	
SBJ:3-PERF-change[SBJ:SG]		judge-ACC.SG	that.MASC.SG.ACC/GEN	
ina	***dīn***	***i-dīn-u***		
in	judgement[CSTR.SG]	SBJ:3-judge.PRET-SBJV		
en-êm		*u-kann-ū-šū-ma*		
change.INF-GEN.SG		SBJ:3-become_firm.CAUS-SBJ:Mpl-ACC.3ms-CONJ		

"If a judge delivered a judgement, [...] (and) later changed his judgement, they will demonstrate that the judge changed the judgement he delivered [...]".
Codex Hammurabi §5 (col. vi), ll. 6-17.

Outside this one text, the same broad characterisation could in principle be put forward in the cases of the type shown in (25), repeated below, where the CHRC-containing nominal as a whole functions as a kind of variable whose identity will vary depending upon the circumstances within which the proposition encoded by the matrix clause applies, somewhat as in examples of the narrower type brought forward by Johnson:

(25)

{*ana*}	{*ūm*}	{*ebūr*(*-im*)}	*mahīr*
for	{day([CSTR.SG])}	{harvest-(GEN.SG)}	price[CSTR.SG]
i-llak-u	*âm*	{(*i*)*-maddad*}	
SBJ:3-go.IPFV-SBJV	barley.ACC	{(SBJ:3-)measure.PRES([SBJ:SG])}	

"On harvest-day he will portion out barley at the going rate" ("the price that goes" = CHRC).
Edzard (1970: 35): no. 4, ll. 7-9.

It is difficult, however, to see how this observation can be extended into a definable semantically-driven constraint on CHRCs. Johnson's is a very contained perspective on only part of the available CHRC data; it is very difficult to see how the view that CHRC heads are necessarily indefinite/non-specific as regards the proposition encoded by the RC (let alone the much narrower semantic characterisation given to the likes of (67)-(68)) can be maintained in the instances such as (26), (27) and (29), unless one adopts the view (recently advanced by Cinque 2008) that all restrictive relative heads originate as indefinites in terms of their RC-internal function, which would, of course, invalidate Johnson's proposal that CHRCs are a special case in this regard. At very least, there appears to be no reliable

diagnostic for the indefiniteness/non-specificity of the relativisation site in the case of CHRCs.

1.4.3 Fronting in Internally-Headed Relatives

Johnson also draws on Basilico's (1996) observation that in several Yuman and Athabaskan languages an IHRC head may be fronted whilst apparently remaining internal to the relative clause (Basilico also brings forth evidence for internal dislocation in IHRCs which does not amount to fronting; these structures are not relevant here). In the following examples from Diegueño, for instance, the head of the typical IHRC shown in (69) may in one dialect be fronted within the IHRC as in (70), but may not take on any marking relevant to its matrix-level function:[22]

(69) *'xaṭcok(-ø)* *'wi:-m* *'tu:-pu-c* *n^{y}iL^{y}*
dog(-OBJ) rock-COMIT I.hit-DEM-SUBJ black
"The rock that I hit the dog with was black."
(Basilico 1996: 501; slightly adapted)

(70) *'wi^{y}(*-pu-c)* *'xat(-ø)* *ni^{y}-m* *'tu:-pu-c*
rock(*-DEM-SUBJ) dog(-OBJ) that-COMIT I.hit-DEM-SUBJ
n^{y}iL^{y}cis
black.indeed
"The rock that I hit the dog with was black."
(Basilico 1996: 501, 505; slightly adapted)

Particularly interesting in these cases, and presumably (though not explicitly) motivating Johnson's proposals for Akkadian CHRCs, is the fact that the fronted head in (70) does not retain the suffixal comitative/instrumental marker characteristic of its internal function. If Basilico is correct that the fronted head in such cases does remain RC-internal, and, despite being dislocated (and thus syntactically identifiable as the head without potential ambiguity), does not take on the expected properties of a matrix-level head noun, this appears to provide at least a broad parallel to some of the overt properties of Akkadian CHRC heads. This part of Johnson's proposal has the merit of providing a plausible parallel to the peculiar form in which CHRC heads

[22] Basilico describes this phenomenon as involving (internal) fronting of the internal head accompanied by the presence of a pronominal resumptive in the original internal head position. I preserve the original gloss "that" for this pronominal here, but it should be noted that this element is explicitly described as a resumptive pronoun (Basilico 1996: 501), and clearly takes the marking of the head's internal function, in this case a comitative/instrumental suffix. A parallel to this form of resumptive is clearly not found in Akkadian CHRCs.

appear, but it is compromised by what are contended here to be incorrect links drawn by Johnson with definiteness or specificity constraints which probably do not exist, and certainly cannot be called on to account for the peculiar properties of Akkadian CHRCs. Johnson seems to assume that this alone accounts for the construct-state form of the CHRC head. Johnson does not set out an explicit view concerning the position to which the CHRC head moves, or what drives the movement (which is obligatory, rather than optional as in the loose parallel drawn to Basilico's 'dislocational IHRCs'), nor does he provide any representation which makes clear the exact sort of structure he envisages, beyond the assertion that the head is dislocated but not external to the relative clause.

1.5 Construct-Headed Relative Clauses in Generative Perspective

Let us now briefly review the substance of the major facts concerning CHRCs laid out in section 1.3. We reviewed three well-known contrasts between CHRCs and *ša*-RCs. First, CHRCs, unlike *ša*-RCs, are limited to restrictive interpretation. Furthermore, object-relativising CHRCs never have a resumptive pronoun, although in *ša*-RCs both gap and resumptive are possible in this context (equally in both restrictives and non-restrictives). Finally, as with construct-state possessive structures, the head noun of a CHRC must appear strictly adjacent to the left edge of the relative clause; by contrast, *ša*-RCs allow various aspects of complex nominal structure to linearly intervene between head noun and relative clause.

In addition to this, we added several newly observed facts suggested by close examination of the CHRC data. First, all aspects of overt complex nominal syntactic structure appear to be barred from CHRCs; not only can these not intervene between CHRC head and relative clause, they cannot appear in any other position either (including in the relativisation site or following the relative clause, positions whose potential for hosting such stranded elements various interpretations of the underlying structure of construct-state possessives might lead us to postulate).

Second, CHRCs relativise only subjects and objects, while *ša*-RCs can relativise various other constituents, including at least indirect objects and

possessive/genitival constituents; furthermore, resumptive pronouns never appear in CHRCs at all.[23]

Furthermore, in so far as parallel forms occur in both possessive and relative 'construct state' nouns, these forms are morphologically identical. However, at least one serious divergence exists between CHRC head nouns and those of construct-state possessives. Masculine plural forms – which, besides the very rare dual, are the only forms of the construct state which show overt case-marking on the head noun – cannot be CHRC heads, even though masculine plural forms do occur as possessum nouns in possessive construct state structures. Furthermore, as we have seen, the occurrence of feminine plural CHRC heads, although two potential but very doubtful cases are known, is unlikely.

Finally we observed that, in constrast to nominal phrases containing *ša*-RCs, which regularly appear as subjects of the higher clause, CHRC-containing nominal phrases never function, in any known example, as the subject of the higher clause when this higher clause shows overt subject agreement – although one possible case, whose interpretation is ambiguous and doubtful, was discussed. On the contrary a matrix clause without (overt) subject agreement does appear to be able to support a CHRC-containing subject. We will argue that this last restriction, if genuine, might fall out naturally from at least one variant of the analysis which will be developed below.

On the one hand, we have shown that the relative clause structure involving a head noun 'in the construct state' and possessive/genitival structures involving the construct state cannot be regarded as wholly parallel phenomena. These facts render many previous intuitive characterisations of CHRCs, which assume that they are more or less identical in underlying structure (at least as regards morphological and/or syntactic processes applying to the head noun) to construct-state possessive structures, untenable; this analytical conflation of possessive and relative environments of the Akkadian 'construct state' applies also to the formal generative analysis of the Akkadian construct state by Walter (2007), which we will examine in detail in relation to possessive structures in the next chapter.

[23] Ravn (1941: 53-4) did speculate on whether resumptives might be impossible in CHRCs, but tentatively dismissed the idea, despite their non-attestation in the small amount of data he considered, and speculated that they were probably possible in CHRCs. He also assumed as a result that CHRCs probably were capable of relativising RC-internal constituents other than subjects and objects, thus missing what is taken here to be the important interrelation between these two facts.

On the other, we have shown that Akkadian CHRCs show some extremely interesting and surprising behaviour as relative clause structures, both in general and as regards their obvious contrasts with the alternative relativisation strategy which occurs in the language itself. In this section, on the basis of this complex of interlocking restrictions, many of which have not been observed before, we will develop an analysis of CHRCs in the light of generative concepts and generative approaches to the syntactic structure of relative clauses which will show that all of these apparently puzzling restrictions are economically derivable with a minimum of special assumptions.

1.5.1 CHRCs and Theories of Relative Clause Structure

Early and long-standing structural analyses of externally-headed relative clauses in the generative tradition were founded on the concept that the head was base-generated in a nominal position external to the relative clause. The relativisation site was related not directly to the head noun but by mediation through a pronominal *wh*-element (potentially overt or non-overt) base-generated in the relativisation site[24] and subsequently moved to the left periphery of the clause, usually producing a gap in the relativisation site. The important factor here is that the head is fully and solely a constituent of a matrix-level nominal structure.[25]

A variant type of external-generation analysis of relative clause structures, generally known as a "matching analysis", postulates that identical or near-identical head nominals are generated both in the external nominal structure and in the relativisation site.[26] These heads are not related in a movement/copy chain, but are independent of one another. In the typical case, the internal head is deleted by ellipsis under identity with the external head. In many respects, the predictions of this cluster of analyses are very similar for our purposes to those of the head-external

[24] See e.g. Chomsky (1977) for a classic formulation of the *wh*-movement analysis and its contemporary theoretical context; for a recent defence see Borsley (1997, 2000).
[25] Generation of the head as an RC-external nominal is also a feature of various non-transformational analyses of relative clause structure; cf. e.g. Sag (1997) and Dalrymple (2001: 400-405) for perspectives formulated in terms of Head-Drive Phrase Structrure Grammar and Lexical-Functional Grammar respectively; in the latter framework, however, Falk (2010) has demonstrated some problems with existing external-generation analyses, and proposed a non-transformational equivalent to the raising analysis, in which no functional element directly mediates in the relationship between the head and the relativised constituent.
[26] Matching analyses first emerged in the 1960s (cf. Chomsky 1965: 127-9, 145); for more recent versions see Sauerland (2003) and Cinque (2008).

analyses generally. We will return briefly to some special properties of the "matching" analyses following discussion of the former.

Vergnaud (1974, 1985) developed an alternative structural concept of relative clauses in which the head itself is base-generated in the relativisation site, and only RC-internally, and is raised to a leftward position (see also Schachter 1973 for a proposal somewhat along these lines). In the earlier versions of this analysis, the head is extracted to a nominal position in the matrix clause. A more recent revised version of the raising analysis, originally proposed by Kayne (1994) as a consequence of Antisymmetry, sees the underlying structural configuration of a relative clause as a DP (which mediates its structure relative to the matrix clause) dominating a clausal structure directly. The ultimate target site of raising in this proposal is not a nominal position at the matrix level, but rather a position at the left periphery of the relative clause itself. Oversimplifying slightly, this target site is the leftmost available position within the clausal structure, which is then accessible for purposes of agreement, for example, to the matrix-level nominal structure represented by the external DP.

In a broad sense, Akkadian CHRCs seem to pose at least a potential problem for both *wh*-movement and raising analyses of relative clauses. A classical external-generation analysis of a restrictive overt-*wh* relative clause such as the English instance in (71)a. would envision the type of structure summarised in (71)b.; likewise an English non-*wh* relative would typically be taken to have an essentially parallel structure, but with a phonetically null *wh*-operator, as in (72).

(71) a. I like the book which you recommended.
b. I like [$_{DP}$ the [$_{NP}$ book [$_{CP}$ which$_i$ [$_{TP}$ you recommended e_i]]]]

(72) a. I like the book (that) you recommended.
b. I like [$_{DP}$ the [$_{NP}$ book [$_{CP}$ Op$_i$ (that) [$_{TP}$ you recommended e_i]]]]

In this type of analysis, the clause's internal structural properties have no direct influence upon the head. The NP head is immediately related to the external nominal structure. This type of analysis predicts that a fully complex structure should be available to the head nominal; i.e. that in this type of relative clause a full extended nominal structure may appear as the head noun. This is indeed the case in such English relatives (as in general for typical relativisation strategies in very many

languages), where the head may freely appear in complex forms such as that seen in (73), just as a full structure seems to be available in Akkadian *ša*-RCs.

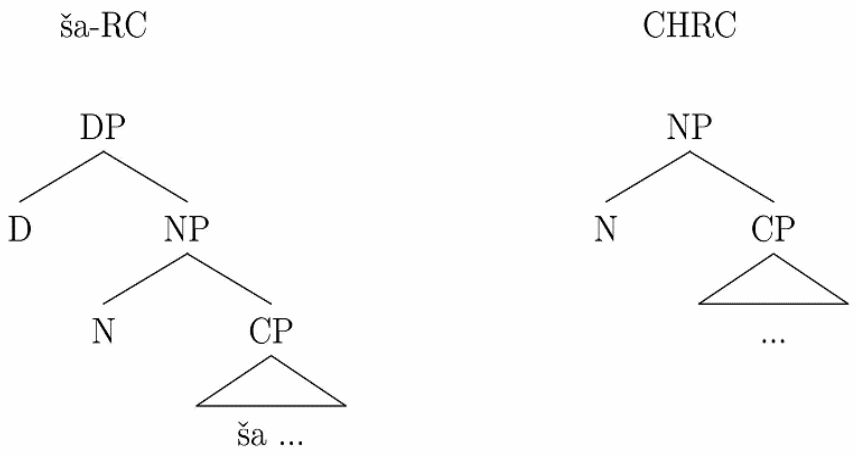
(73) I like the three small books of recipes (which)/(that) you recommended.

In this simple form, however, such an analysis has no potential mechanism to account for the peculiar properties of Akkadian CHRCs, which appear barred from manifesting a full nominal structure.

Various mechanisms could be envisaged to permit an external-generation structure to allow for some of the peculiar features of CHRCs. The principal difficulty, however, is a serious one: if the head noun is fully a constituent of the RC-external nominal structure, one would expect that it would have access to the full range of this external nominal structure and to its features (including, most notably, case and thus overt case-marking).

In the simplest fashion, we might hypothesise that the external nominal structure containing *ša*-RCs is fully articulated (headed by D, or whichever functional head is normally the highest element in the full nominal projection), whereas CHRC nominals are simply generated in a reduced form (e.g. as a bare N or NP). We would then be faced with an extremely simple structural contrast of the following type (to emphasise that the contrast intended is between full and reduced external nominal structures, in these simplified representations the extended/*ša*-RC structure is shown with an unmodified N head; the head can of course be more complex, and would then under traditional assumptions be represented as NP):

(74)



Besides being something of an arbitrary proposal, there are significant basic problems with attempting to reduce the contrast between the two relativisation strategies to this minimal divergence. Chief amongst these is that there is, in this structural configuration, no particular reason to assume that this type of reduced external nominal structure would not be available to Akkadian nouns in general, regardless of the presence of a modifier such as a relative clause. Whilst, as will be seen from other chapters in this thesis, Akkadian does seem to feature a fairly diverse distribution of reduced nominal structures, this distribution is seriously constrained. It is certainly not normally possible for a non-*status rectus* nominal to appear as a conventional verbal argument unless it appears in one of the contexts of the construct state, i.e. with a possessor nominal or CHRC-type relative clause.

The other principal possibility for an external-generation analysis is that it is the structural nature of the relative clause, rather than of the external nominal structure, which is of a special type, which (at least) causes the appearance of the construct-state form – in other words, that the embedded clause of CHRCs, unlike that of *ša*-RCs, is behaving as a nominal element with respect to the structure external to it, or is otherwise analagous, in its relation to an external head, to the possessor nominal in the possessive construct state construction in its relation to the possessum noun in the construct state. This would point towards one significant economy: the initial potential in principle for a near-unification of the structural configuration of construct-state possessives and CHRCs. Putting the most obvious version of this possibility more simply, if the relative clause of CHRCs is (for all purposes external to the embedded clause itself) nominalised, then the CHRC head may simply be behaving with respect to the relative clause in exactly the same way in which a conventional construct-state noun behaves with respect to the possessor nominal. Without entering in detail into the minutiae of the analysis of construct-state possessives at this stage, we could envision outline structures of the following, essentially parallel kind[27] for the construct state possessive in (75) and the CHRC in (76), abstracted from (6) and (4) respectively:

[27] The configurations shown in (77)-(78) are similar to the classic N-to-D head-raising analysis of construct-state possessum nouns (e.g. Ritter 1988); most other existing analyses will not be fundamentally at odds with this broad conception.

(75) *aššat* *awīlim*
wife.FEM.SG.CSTR man.GEN.SG

(76) *qišti* *abum* *iddinūšum* *ileqqē-ma*
gift.FEM.SG.CSTR father.NOM.SG give.PRET.SBJV.DAT.3ms take.PRES.SBJ:3SG-CONJ

(77) [$_{DP}$ *aššat*$_i$ [$_{DP(POSS)}$ *awīlim*] [$_{NP}$ e_i]]

(78) [$_{DP}$ *qišti*$_i$ [$_{NP/DP}$ [$_{CP/TP}$ *abum iddinūšum*]] [$_{NP}$ e_i]] *ileqqē-ma*

In the context of Semitic languages a similar configuration of relative clauses has been suggested by Ouhalla (2004), principally in the context of (Lebanese) Arabic relatives. These are argued to possess some determiner-like constituent or feature, which Ouhalla identifies with the relativiser (*i*)*lli* (Standard Arabic *allaði:*), which has morphological similarities to the definite article. This relativiser obligatorily appears with a definite head, but is obligatorily absent with an indefinite head. On this basis Ouhalla proposes that this type of relative clause is a form of nominalisation, viz. a finite TP contained within a nominalising DP headed by the determiner-like relativiser.

Ouhalla's analysis proposes that the relative clause is located in a Specifier position in the nominal phrase, such as Spec,N (essentially as a mechanism for permitting long-distance agreement in definiteness between the external D head and the 'relative DP', as well as for preserving a phrase-structural configuration strictly in line with Kayne's (1994) Antisymmetry theory without relying on any variant of the raising analysis). The head noun raises to D, yielding structures such as the following (adapted from Ouhalla 2004: 288, 290):

(79) *l-baṭṭ-a* *illi* *ʔakalna:-ha*
DEF-duck-FEM REL we.ate-it
"The duck that we ate".

(80) [$_{DP}$ *l-* [$_{N}$ *baṭṭ-a*]$_i$ [$_{NP}$ [$_{DP}$ *illi* [$_{TP}$ *ʔakalna:-ha*]] [$_{N}$ *e*]$_i$]

Although this type of structure is very different from more traditional external-generation analyses of relative clauses, the essential similarity of the full independence of the head noun from the embedded clause remains. Crucial to Ouhalla's analysis are certain facts concerning the behaviour of heads in these Arabic relatives which point in the opposite direction from the head having any restricted form or behaviour; i.e. which suggest that the external D+N head must

have an especially independent nature from the relative clause over and above that found in restrictive relatives in some other languages. Most notably, determiners are normally impossible with proper names in Arabic; this applies also to restrictive relatives, unlike e.g. English, as in the following example. This, in Ouhalla's view, contradicts for the Arabic structure the predictions of Kayne's raising analysis, in which DP is associated with the entire clausal structure, rather than merely the head noun:

(81) (**l*-)*paris lli bḥibba*
(DEF-)Paris REL I.love.it
"The Paris that I love." (Ouhalla 2004: 289)

Ouhalla's analysis of Arabic relatives predicts (and is formulated to predict) the potential for the head to have the exact properties of a fully normal nominal structure, including the standard behaviour of determiners; in other words, the opposite situation from that of Akkadian CHRCs. We return, therefore, to the essential problem: an externally-generated head ought to have the potential for a full nominal structure, or at very least the full structure available to construct-state nominal structures in possessives, as would be predicted by an analysis formulated on any basis similar to (77)-(78).

Even if we achieve a partial advance towards explaining the construct-state form of the head by assuming that the relative clause is in some sense nominalised, or possesses a nominal 'shell', and behaves for RC-external purposes in the same manner as a genitive possessor nominal in a possessive construct complex, this does not account for the further reduction in structural possibilities which characterises CHRC heads.[28] Whilst there may be the initial potential in a nominalisation-based analysis of CHRCs to account for the presence of the construct-state form, as well as the simple similarity between the construct-state form of the head noun in both environments of the construct state (and the similar strict adjacency requirement to

[28] I am not aware of any existing analysis of the possessive construct phenomenon which would allow this parallel to be produced without assuming a nominalising shell of some kind (in Akkadian this would apparently have to be non-overt). My own proposals concerning the possessive construct, set out in ch. 2, may actually be an exception: leaving aside some substantial issues of detail, if it were possible to site a relative clause in the type of functional specifier I argue hosts possessor nominals, it might be possible to derive the affixal absences, hence the 'construct state form', in the CHRC this way regardless of its status as a clausal rather a nominal category. Nevertheless, this would still, in common with all other attempts at a parallel between the relative clause of CHRCs and the possessor phrase of the typical construct state environment, fail to provide any means of accounting for the stronger restrictions on CHRCs. For this reason the idea is not pursued further here.

the possessor/relative clause), the situation is not sufficiently simple as to permit the adoption of an analysis of this type as it stands. There must be some form of structural divergence between CHRC heads and conventional construct-state nouns in possessive constructions, because, as we have seen, their behaviour is not identical. A significantly broader range of structural complexity is available to construct-state nouns in possessives than is available to CHRC heads (including, at least, adjectival modification and case-marked masculine plural forms). Furthermore, unlike some other types of nominalised clausal structures (e.g. Chantyal (Tibeto-Burman) relative clauses (Noonan 1997), explicitly marked as nominal by a standard nominalisation marker of wide distribution), there is no clear diagnostic in Akkadian which suggests nominalisation, unless one, rather circularly, takes the construct state itself as secondarily indicative of nominalisation; no overt nominaliser appears, and the embedded clause of CHRCs, excepting the variation in relativisation possibilities between CHRCs and *ša*-RCs, does not show any divergence in form from the embedded clause of *ša*-RCs, or, indeed, from other types of subordinate clause in Akkadian. Both RC types clearly show finite, tensed verbal forms, which are morphologically marked as subordinate/subjunctive (as are non-relative finite subordinate clauses generally); nominal constituents overtly internal to the relative clause show their expected case-marking, and so on.

As a final point, it may be noted that no external-generation analysis immediately offers an explanation for the reduced capacities of the relativisation site in contrast to *ša*-RCs, i.e. that in CHRCs subjects and objects only are relativised, and resumptive pronouns do not appear. Whilst it is not beyond the bounds of possibility that this is simply an idiosyncratic fact of one relativisation strategy as against another, some progress towards an explanation of the clause-internal as well as the clause-external differences would be preferable, especially as what we are essentially observing is a series of limitations on structural possibilities affecting both of the CHRC head's syntactic roles. In the analysis to be developed below, I hope to show that both sets of limitations can be accounted for in a more coherent way.

Similar problems arise with "matching analyses", in which the external head is doubled by an identical or near-identical internal head to which it is not transformationally related. These analyses envisage the deletion under (near-)identity, by a variety of mechanisms, of one of the two heads. In some versions, only the

internal head may be deleted; this, of course, results in exactly the same difficulties in accounting for the restrictions on CHRCs as do other head-external analyses. A slightly more complicated variant is proposed, for example, by Cinque (2008); Cinque proposes that under certain conditions the external head may be deleted, resulting in the paradigm case in a canonical internally-headed relative clause. An unmodified version of this analysis would suffer a similar problem: the internal head (dislocated for some independent reason or not) would be expected to be capable of supporing a full nominal structure.

Having explored some possibilities for the analysis of CHRCs on the basis of a head originating RC-externally, let us return to existing proposals of the RC-internal generation of relative heads, in the form of the raising analysis. Kayne's (1994: 86-92) version of the raising analysis argues that all (externally-headed) relatives involve a DP>CP configuration, in which context the head is generated as a determinerless nominal structure in the RC-internal relativisation site, is subsequently raised to the left periphery of the relative clause, and is there accessible to the matrix-level DP for the purposes of 'case-assignment'[29] and other relations between the head noun (phrase) and the RC-external nominal structure, as illustrated here (adapted from Kayne 1994: 87):

(82) a. The picture that Bill saw.
b. $[_{DP}$ the $[_{CP}$ $[_{NP}$ picture$]_i$ [that Bill saw $[_{NP}$ e$]_i$]]

It is clear that CHRC heads are overtly located either in a matrix-level nominal position (where it can be assumed that they would, incorrectly, be accessible to matrix-level case-assignment, and so on); or at some position within what is, informally speaking, the left periphery of the relative clause. However, Kayne's analysis requires that the typical target site of raising, despite being essentially clause-internal (in the simplest case, Spec,CP), must in some manner permit case-assignment to the raised head via the external determiner. As we have seen, Akkadian CHRC heads are clearly not accessible to case-assignment in this fashion, and as such do not fit neatly into the raising analysis either.

One of the most potent objections to the raising analysis of relative clauses has related precisely to case-assignment (Borsley 1997; 2000: 4-6). In languages

[29] I use the designation *case-assignment* here as a theory-neutral term denoting whatever relation holds between the high functional element of the extended nominal projection which receives Case, and the lower internal constituents of the nominal projection, including the noun.

with overt case-marking, it is typically found that the head noun bears case-marking according to its function in the matrix clause, whereas an overt relative *wh*-element if present shows the case expected of the relativisation site. As noted by Borsley, in the classic *wh*-movement analysis this situation falls out naturally from the fact that the head is base-generated at the matrix-clause level (and is thus assigned case according to its matrix-level function), whereas the *wh*-element is base-generated in the relativisation site (and is thus assigned case according to its function in the embedded clause); no case conflict is possible as the head is not in a position to be affected by the structural nature of the relativisation site at any stage of a derivation. On the contrary, the Kaynean raising analysis proposes that *wh*-relative heads originate in the relativisation site as a DP headed by the *wh*-element, dominating the NP head. A two-stage raising process applies to the DP to derive the structure underlying the surface form: the entire DP structure raises to Spec,CP, followed by extraction of the head NP alone to a leftward position presumed to be the specifier of the *wh*-DP, in other words being somehow attracted to the leftmost possible position within the relative CP. Setting aside for the time being these complex and, in this version, apparently unmotivated multiple stages of movement, it is worthwhile to note that a potential case conflict arises regardless, even in non-*wh* relatives, as one might intuitively expect the raised head to bear the cases of both the relativisation site and the matrix DP.

In Kayne's formulation, non-*wh* relatives are generated as bare NP structures in the relativisation site. Later formulations have for various reasons proposed that the internally-generated head is a full extended nominal structure, i.e. DP, which either raises as a whole (Bianchi 1997, 2000) or remains in situ whilst its noun complement raises (Donati and Cecchetto 2011, who propose that resumptive pronouns provide a visible manifestation of the internal determiner).

Before we move on, it is worth considering the last of these variants of the raising analysis in additional detail, as its innovative theoretical underpinnings and their implications place it for our purposes in a position of special independence within the "Kaynean tradition" of raising analyses of relatives. Drawing on a theory of relabelling head-movement advanced by Cecchetto and Donati (2010), Donati and Cecchetto (2011) pursue a version of the raising analysis which returns, albeit in a divergent manner, to Kayne's idea that the RC head raised from internal to quasi-external position is not a fully articulated nominal structure. Although it has its

origin in Kayne's (1994) raising analysis, we may first single out prior to a detailed discussion perhaps the most important initial difference for our purposes: for Donati and Cecchetto the resulting structure, simplifying slightly for the moment, differs from Kayne's in a crucial way: the head noun is internally Merged with the clause as a whole, projecting and labelling the resulting structure as N(P), which is then selected by D, resulting, despite the internal origin of the head noun, in a fully conventional extended nominal projection, quite unlike Kayne's approach which sites the head NP in Spec,CP.

We must first briefly review the broader theoretical proposals which provide the basis for Cecchetto and Donati's work on relative clauses, proposals which aim to develop a simplified labelling algorithm in the context of Bare Phrase Structure. Identifying the (Merge-licensing) "edge features" of Chomsky (2008) with selection generally, Cecchetto and Donati (2010) further propose to identify selection with the notion of Probe-Goal relations, taken in more conventional models to underlie only Agree and, secondarily, 'movement'. This allows them to postulate a unified labelling algorithm based on the revised concept of Probe: since all Merge operations involve a Probe, they propose that the Probe uniformly labels the structure resulting from any Merge operation. By this they attempt to unify the two conditions proposed by Chomsky (2008) to determine labelling, which invoke both the idea that an LI (a minimal merged element, or X_0 in X'-theoretic terms) uniformly labels when merged with a complex structure, and the assumption that the Probe underlying a case of internal Merge uniformly labels the resulting structure (as against the Goal/'moved' constituent). So, for Cecchetto and Donati, an LI enters an existing derivation from the Numeration as a result of (typically category-)selection, which is in their view an instance of Probing; it thus labels the structure resulting from external Merge. It is with movement/internal Merge that their proposals have interesting consequences which allow them to develop a novel raising analysis for relative clause structures.

In Cecchetto and Donati's theory of Probing and labelling, a selector/Probe labels the result of Merge; thus, if an LI (~ X_0) is Merged, it may transmit its label even if internally Merged. This leads them to the possibility of a kind of selection-driven 'head movement' (very much distinct from traditional head-to-head movement implementing some form of Travis (1984)'s Head Movement Constraint) which would result in the relabelling of the structure thus produced with the label of the moved head.

Let us very briefly examine one major effect of such a proposal beyond the domain of headed relatives, in the form of an English example such as (83). Since this structure can result both from Probing by C for a *wh*-item, resulting in a C-labelled structure, as in (84)a., and (anticipating details we have not yet touched on) from the need for a selector outside the clause to Merge with a structure labelled D, as in (84)b., assuming that *what* in (83) is an LI featurally specified as D, it can label the resulting structure; these two alternatives result in an indirect question and a free relative respectively. It is important to note that in this analyis, (84)a. and (84)b. do not differ structurally except as to labelling; C labels the projection in the first and *what* in the second.

(83) what I did

(84) a. He wonders [$_{CP}$ what C [$_{TP}$ I did ~~what~~]]

b. I like [$_{DP}$ what C [$_{TP}$ I did ~~what~~]

Regarding headed relatives, Donati and Cecchetto (2011) propose that, *contra* the standard assumption that N/NP/DP raises to the left periphery of the clause (within a projection 'labelled', if relevant, as C(P) or equivalent), the raising derivation of relative clauses should be taken to involve this relabelling: an internal N-head raises in this novel sense, and relabels the resulting [N [CP]] structure as N(P), which then develops in the subsequent derivation as a typical nominal structure.

This scheme of relative clause derivation, they propose, will allow a resolution of the problem of the unmotivated secondary movement of N from within the *wh*-DP in typical overt-*wh* relatives in the Kaynean raising analysis: whatever drives raising of N (which we will discuss shortly) can trigger this type of head movement in both cases, and *wh*-movement can be motivated independently under normal assumptions. As we noted above, Donati and Cecchetto further assume (against Kayne, but with some other versions of the raising analysis) that there is a null D head in the relativisation site selecting N in its base position; this D they take to be realised in the form of resumptive pronouns where such occur. They also propose to escape Borsley's case-conflict objection to raising by assuming that since Case is standardly associated with D and, because there are two D heads corresponding to the internal and external roles of the head, which are not

transformationally related despite the fact that the internal N of each constitutes two copies of the same item, case conflict does not occur (in fact this hardly seems more than a potential direction towards avoiding the case-conflict problem, but is not developed further). In Donati and Cecchetto's innovative raising analysis, the derivation of (85) thus resembles that schematised in (86), and illustrated in tree form in (87) (abstracting over possible intermediate movements which Donati and Cecchetto themselves leave aside).

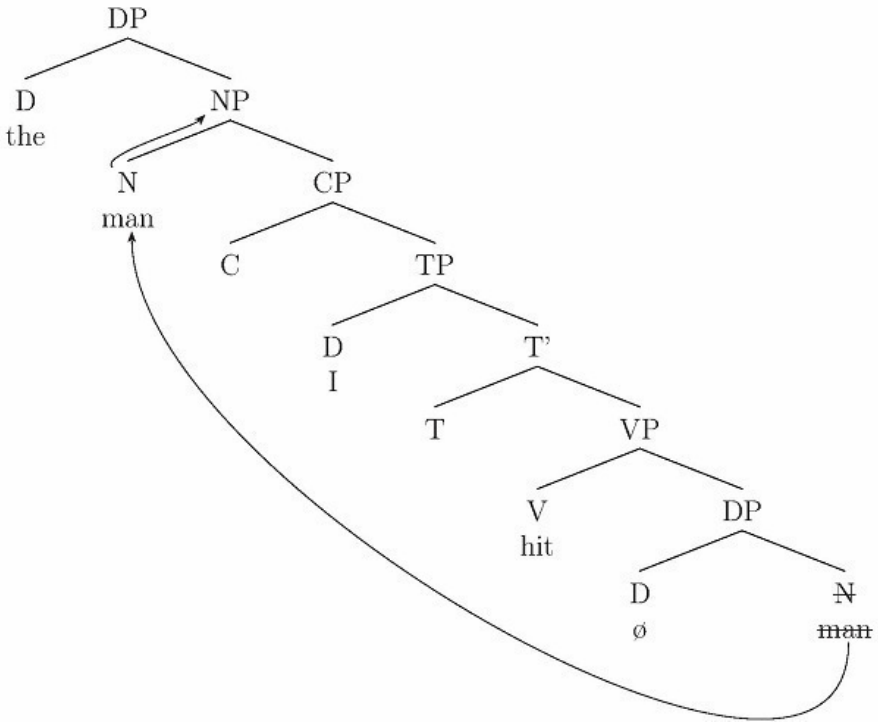
(85) The man I hit.

(86) a. $[_{CP}$ I hit $[_{DP}$ ø $[_{N}$ man]]] →

b. $[_{NP}$ man $[_{CP}$ I hit $[_{DP}$ ø $[_{N}$ ~~man~~]]]] →

c. $[_{DP}$ the $[_{NP}$ man $[_{CP}$ I hit $[_{DP}$ ø $[_{N}$ ~~man~~]]]]]

(87)



The trigger for the movement of N is somewhat non-standard in Donati and Cecchetto's model (though their proposal has some parallels in the more conventional raising analyses; cf. e.g. Bianchi 1997): movement is taken to be triggered by the selectional needs of D (to merge with an element labelled N), even though D at this stage of the derivation remains in the Numeration. Having expanded the notion of Probe, Donati and Cecchetto assume that the 'search' of the existing structure assumed to occur in more conventional models of Probe-Goal relations can

likewise be performed on the existing derivation by a Probe not yet externally Merged into the derivation: D, requiring to be Merged with N, seeks an appropriate item in the existing derivation, forcing it to remerge with the root in order to provide a suitable structure for the subsequent external Merge of D. As a result of this procedure, N may merge with the root and relabel the structure.

The last factor in this analysis – the process by which N becomes a selector/Probe despite having been 'buried' in the existing derivation and presumably, on standard assumptions, incapable of 'on its own' acting as a Probe either in the standard or the revised sense – is not entirely clear in Donati and Cecchetto's analysis. Implicitly, it seems to be assumed that, after internal Merge of N is triggered by the attempted external Merge of D, N is arbitrarily 'reactivated' in this sense; being forced to Merge with the root, it selects/Probes in some sense, resulting in labelling by N.

A substantial part of Donati and Cecchetto's motivation for adopting both a raising analysis and a variant of the N/NP-raising (as opposed to DP-raising) version of the raising analysis is an attempt to account for certain apparent variations in reconstruction effects, which seem to differentiate the behaviour of the head noun from that of its modifiers. Since their analysis necessarily adopts the strongest possible version in their framework of the structural simplicity of the raised RC head (as N), their proposal entails that all elements in the complex structure of the head DP except N and D are late-merged.[30] Simplifying substantially so as not to take us too far from the main line of our discussion, this is taken to derive reconstruction effects such as the occurrence of a Principle C violation in (88)a, as opposed to a lack of such a violation in (88)b. They thus choose to weight the evidence of the Principle C violation over that of the operation of Principle A inside a complex RC head, which has often been taken to support the 'phrasal raising' analysis without late Merge; they assume that (89), which seems to contradict (88) by suggesting that *himself* is indeed part of the structure of the head raised from inside the relative

[30] Donati and Cecchetto are thus forced to conclude that all constituents within a complex nominal structure, except D, are thus (unselected) modifiers, and argue this point at length. Although highly significant to the tenability of their analysis in general, we leave this long-standing and intricate debate aside here, as not directly relevant to the present topic.

clause (in which position it was c-commanded by the binder), results from backward pronominal control of null PRO inside NP, which binds the reflexive.[31]

(88) a. *The professor$_i$ that he$_i$ always praises.
b. The professor of John$_i$'s that he$_i$ always praises.

(89) [$_{DP}$ The [$_{NP}$ PRO$_i$ picture of himself$_i$] [that John$_i$ likes ~~picture~~ most]]

(Donati and Cecchetto 2011: 540-1)

If, leaving aside the much broader discussion that surrounds this issue, complex nominal structure can be late-merged in the external DP, it stands to reason that it can only be late-merged if such a structure exists, i.e. if the relabelling [D [N [C]]]-type structure is actually produced. Thus, if CHRCs had some aberrant property which prevented the normal formation of this structure, this late-merge process might be prevented from applying. It is not entirely clear how (or if) in Donati and Cecchetto's proposal stranded nominal modifiers are prevented from surfacing in the relativisation site rather than as part of the external nominal projection. This could be related to some property of the 'null'/resumptive D, or, alternatively, would necessitate a theory of late Merge which (probably, in fact, a general requirement for an adequate late Merge analysis of adjunction in DP) would determine that late-merged material can only be associated with the higher/pronounced copy. Assuming, therefore, that surfacing of modifiers in the relativisation site can be prevented by some such means, we are at least slightly closer here to a plausible idea of a process which, via some relatively slight variation,

[31] Another general problem with Donati and Cecchetto's raising analysis is its treatment of the relativisation of idiom chunks. Recall that examples like (i) have been considered some of the major empirical evidence for a raising derivation at least as far back as Vergnaud's (1974) version. What is not mentioned in Donati and Cecchetto's proposal is that this gain of the traditional raising analysis seems to be lost in their version in the case of RC heads composed of complex nominal idiom chunks. So the RC-internal idiomatic interpretation of (ii) ought to be impossible under their proposals.

(i) The headway they made was astonishing.

(ii) The big deal he made of his promotion was annoying.

Some reformulation of the behaviour of idioms in relativisation (or the underlying theory of their structure) may salvage Donati and Cecchetto's analysis in this respect, but it is notable as a problem from which only their version of the raising analysis suffers.

could result in a failure to allow the surfacing of complex nominal structure in an RC head.

However, we run into new or strengthened problems in accounting for CHRCs under this kind of model to at least as great an extent as it may offer any improved prospects. It is clear that an unmodified version of Donati and Cecchetto's variant of the raising analysis cannot cope with the facts of CHRCs: in particular, without some special factor, no variation in the normal relation between the external D and the raised N will result in a valid derivation. Though this applies in one way or another to all versions of the raising analysis, an additional complication in this instance is that any attempt to alter the syntactic relation between 'D' and N via some special mechanism in the case of CHRCs will run up against severe problems in the context of Donati and Cecchetto's theory of selection and Merge: in their view, not only is it not normally possible (at least in languages without internally-headed relatives) to fail to move N, or to move it in some aberrant way, but it should also be impossible to externally Merge D without this movement applying in the fully normal way.[32] As such, on the face of it, there is less possibility here for accounting for CHRCs than with the Kaynean raising analysis in its original formulation.

1.5.2 Towards an Explanation of the CHRC

As we have reviewed at some length, it is clearly extremely difficult to discover a means whereby major existing analyses of externally headed relative clauses could accommodate the peculiar behaviour of Old Babylonian CHRCs. According to all of the various concepts reviewed above of the relation between the RC head and the

[32] One further point should be mentioned as an aside here. Conventional RC heads of course control subject agreement in the embedded clause, including for number, as in (i).

(i) a. The teacher that walks past my window every morning is always steely-eyed.
b. The teachers that walk past my window every morning are unnerving to say the least.

Donati and Cecchetto consider, against previous versions of the raising analysis, that only a minimal N can raise as an RC head. For these reasons, it appears that in Donati and Cecchetto's analysis the minimal head which is moved will have to be specified for number (but not for case, which is associated with the external D). As we have seen, the situation of number in CHRC heads is not entirely clear; furthermore, only if (43) is in fact a CHRC do we have any definite example of a CHRC head controlling subject agreement for number inside the embedded clause. Since the data on number in CHRCs is inconclusive, we cannot use this criterion to decide between analytical possibilities, but we must note that necessary consequences of Donati and Cecchetto's theoretical position seem to bar entirely any possibility of an actual absence of number in CHRC heads. It must also be noted that for Donati and Cecchetto's assumptions about BPS to hold, it would seem that no N should ever be capable of being fully 'numberless'; though this has little decidable impact here, it is probably at odds with the analysis developed in chapter 3 of the Akkadian stative.

external nominal structure, we would expect this head to have all of its normal possibilities of complex morphological and syntactic structure, including those relevant to the Akkadian facts, including modifiers of various kinds as well as morphology marking case (and number, if in fact this is not available to CHRC heads).

Equally, it is not possible to consider the CHRC any obvious sort of variant of an internally headed relative clause. No complex nominal structure can appear in the relativisation site, and the head noun does not seem to receive case in the context either of its external *or* of its internal role. The CHRC also bears no close resemblance to the dislocational IHRC structures reported by Basilico (1996); these structures allow resumptive pronouns, and such dislocation is optional in these languages. By contrast, nothing like a non-dislocational IHRC is available in Akkadian, in which the RC head would appear in its normal position in the clause (say, between subject and verb in the case of relativisation of an object), let alone with its normal case-marking morphology.

So far, the raising analyses of externally headed relatives seem to provide the only plausible point of departure, in the sense that, for the most part, they assume some kind of unusual relationship between the head and the external nominal structure (as, in the simplest case, for Kayne 1994, for whom the head NP raises to the Spec of a CP directly selected by an external D). Although none of these analyses has the potential to account for CHRCs without alteration, it is only here within existing generative perspectives on relative clause structure that there seems even an initial potential for developing an account which would capture the properties of CHRCs.

CHRC heads seem to be characterised by a lack of (a) case, and (b) many, perhaps all, elements of the extended nominal projection. We must presume, therefore, that the full extended nominal projection is not available to these heads at any stage in the derivation, in other words neither in the form of a fully fledged nominal structure in the relativisation site nor through any relation established with a fully fledged projection outside the embedded clause.

We may first hypothesise, therefore, that in the structure of CHRCs the head noun is Merged in the relativisation site in some minimal form. This could, though not without some complication, constitute a slightly altered (or more specific) version of Kayne's (1994) NP-raising. This minimal instance of a noun may be

minimal in a phrase-structural sense (e.g. an LI only in Bare Phrase Structure), or could perhaps be a slightly complex structure (including, for example, a projection hosting gender; in the unlikely event that feminine plural CHRCs are in fact available, it might include a Number projection). This could also be envisaged as something like the minimal product of the merger of a DM-style 'root' with a categorising *n* head (cf. e.g. Harley and Noyer 1999; Arad 2003). Without deciding between the various possibilities at this point, in what follows we will refer to this minimal noun or nominal projection with the arbitrary symbol N!.

In the context of CHRCs, the most obvious effect of the head being only N! in the relativisation site is to rule out any overt manifestation of nominal case in that position, i.e. resumptive pronouns. It may also provide an initial clue as to the structure of CHRCs with regard to the obligatory dislocated position of the head. What is important is that a 'reduced' nominal structure in the internal position cannot be realised in the internal position, because, under fairly standard assumptions, it cannot be licensed by RC-internal Case if this is a property associated with D(P) or similar.[33] It will not therefore be able to remain *in situ* in a valid derivation; rather, the derivation will work out only if the head raises to a position in which it may be (to use a neutral summary term) 'licensed'. In the typical externally-headed relative clause, within the framework of the raising analysis, this will be a position such as Spec,CP, which is accessible to Case mediated through the matrix DP.

Having concluded that the form of CHRC heads as Merged in the relativisation site is some minimal form of the noun or nominal projection, we must also assume that the head does not, in the target site of raising, establish the same kind of licensing relation with the external determiner as does a more typical EHRC head.

It is at this point that the overt morphological form of CHRC heads, i.e. the construct state, becomes important. It is clear that CHRC heads do not receive case at either level. Such an RC head must be licensed in some other way. The fact that these heads are realised in the construct-state form (which in the alternative possessive context, given the fact that the possessive-type construct-state does have overtly cased forms, has at least a certain level of morphological distinctiveness from the concept "noun without case") is doubtless significant.

[33] From here on we will use 'D(P)' to refer to the maximal category of the extended nominal projection, without ruling out that in Akkadian or generally it could be something else (e.g. K(ase)).

Recall also that a construct-state noun in a possessive construction is capable of being associated with case (marked on adjectives as in (19)-(20) and masculine plural construct-state nouns as in (46)-(51)), but in the majority of forms does not display it overtly via the normal SR case-marking suffixes – informally, it displays the morphologically reduced "construct-state form" overtly in preference to displaying case morphology overtly, the latter plausibly occurring only when the available inventory of surface morphemes spelling out plural number forces it, i.e. in the masculine plural forms in which exponence of number and of case are fused in one surface morpheme. This seems to support, secondarily, the idea that the primary manner in which construct-state nouns are licensed relates to the material following them, upon which the presence of the construct-state form is dependent, rather than to case assignment.

As the majority of generative discussions of the construct state have focused on Arabic and Hebrew (major generative approaches to the possessive construct will be reviewed in detail in the following chapter), its analysis has been tightly bound up with the question of the structural properties of definite determiners/prefixes in these languages. The construct state as a form has not normally been regarded in the generative literature as anything other than a byproduct of some narrower properties of (possessive) construct complexes, such as the inability of overt determiners to be realised on construct-state heads and the close phonological relationship between the construct-state head and the following material.

The closest approximation in the recent literature to the view that construct complexes involve some kind of licensing relationship is Shlonsky's (2004) proposal that the adjacency requirement of construct-state possessive complexes in Arabic and Hebrew results from the need for the possessee to assign genitive case to the possessor nominal. This possibility, however, encounters a significant difficulty when considering CHRCs in Akkadian: these share the adjacency requirement of possessive construct complexes, but case-assignment by the CHRC head to the following relative clause is not a plausible explanation in this case. It is judged preferable here for this reason to adopt the view that some relationship of the reverse type is (at least principally) responsible for the adjacency requirement, and for the 'assignment' of a construct-state form to the possessee nominal; in other words, that the CHRC phenomenon involves some form of licensing of the RC-head by the following relative clause.

This relation appears to function in CHRCs as an alternative to the licensing of nominals by case: the CHRC head does not receive case at all, and the head thus has no source of licensing other than through its relationship to the relative clause, or some element of it. If such a licensing relationship can be taken to be the means by which the head is licensed, we have the foundations for an explanation for the existence of an apparently aberrant NP-like structure which cannot display any manifestation of case.

Having argued that a licensing relationship of some kind between the CHRC head and (some part of) the following material must exist, we turn now to the question of the syntactic character of this relationship, and to the reasons for the contrast in properties related to case assignment between construct possessee nouns and CHRC heads.

As noted above, we propose here that CHRC heads at least are do not project nominal material above N! (that is, a bare head or some very structurally reduced form of the extended nominal projection). They do not, therefore, receive Case in the relativisation site. We assume here that Case is basically a property assigned to DP, or the full extended nominal structure in whatever form, as a whole (see generally Bobaljik and Wurmbrand 2008); for the purposes of the overt display of case-marking by nominal constituents under DP, the relevant case feature can (without entering into unnecessary detail on the exact nature of this relation) be globally available to the entire DP structure. As such, a noun or other element of the nominal structure which must morphologically display case will have access to the relevant feature regardless of its ultimate position in the DP structure; hence, perhaps, case appears to be available to construct-state nouns and their modifiers in the possessive construct construction, even though, for semi-independent reasons to be discussed in ch. 2, the head noun of CS possessives in Akkadian usually does not itself bear the normal case-marking suffixes.

As a basic principle this should apply regardless of the nature of the structure under DP. However, the fact that this possibility is capable of violation in the DP>CP structure has rather natural causes in existing theoretical concepts. Typical EHRC head NPs – assuming the raising analysis as a generality – receive Case, and where relevant display case-marking, appropriate to the RC-external position, whilst CHRC heads appear inaccessible to case features, and also to have no association with complex nominal structure in an RC-external position in addition to lacking it

in the internal position. If we were to assume, therefore, that the landing site in the raising of CHRCs is not such as to bring it into a sufficiently local relation with the external 'DP' for it to 'become part of' this external structure in the manner assumed, in one way or another, by existing versions of the raising analysis, most if not all the aberrant properties of CHRCs would be accounted for simply by regarding (at least) the clause boundary as a barrier to syntactic accessibility, as under the fundamental principles of Phase theory (Chomsky 2001): since CP is a phase, the domain of C becomes inaccessible, according to the Phase Impenetrability Condition, before CP merges with D; only the left edge of CP (to C_0) will remain accessible to the higher structure during the remainder of the derivation. In other words, any feature globally available through D to the structure dominated by its projections will have access to the leftmost positions of CP in the same way as any part of a more canonical nominal structure; but lower positions will be inaccessible. Assume as a hypothesis that the 'licensing position' of CHRC heads, the target site of movement in their case, is beneath this accessibility barrier (Phase head or similar). Instances in which the CHRC head must display overt features of case (i.e. dual and masculine plural forms, and those with complex NP structures some other element of which must show case, as with adjectives) will be ruled out, as no case feature will be available to the CHRC head N!.

The extent to which, in CHRCs in particular, the requirement for strict adjacency and the complete lack of complex structure necessitate an independent explanation from the case-deficiency of CHRC heads is not certain. Provided the final site of the CHRC head N! is within the extended clausal structure, the material which would have the potential to intervene between the CHRC head and the material which overtly follows (roughly, the relative clause TP) consists of postnominal elements of an extended structure of the CHRC head nominal itself. Such material may be wholly ruled out by the lack of ability to manifest case overtly.

1.5.3 Issues and Details

In the preceding section a direction for the analysis of the CHRC was sketched, some of the basic conditions it would have to meet were outlined, and we began to explain how an analysis which met these conditions would have the potential to predict the puzzling complex of restrictions to which the OB CHRC is subject.

In giving an account of such an analysis in greater detail, however, we obviously face a number of issues. As yet our discussion has been somewhat vague, and has both glossed over details and left to one side a number of substantial theoretical issues which arise with any such account when worked out in a more specific way. This section addresses some relevant problems and intricacies and develops specific versions of this type of account with explicit representations.

We must first consider several potential problems that arise from the proposal that the CHRC head does not receive case. Case has been claimed to be necessary for θ-role assignment; certain views of the discharge of Case features might rule out derivations in which a verb has accusative Case to assign but does not assign it; and if Phase theory is appealed to we need to explain how a CHRC head which is the object of a verb can move out of a vP phase without valuing Case at the vP phase edge.

As regards the association of accusative Case with the vP phase edge, for our analysis we must assume this is not a requirement of the position. If a nominal constituent is built with a functional projection which can receive a Case feature (we conclude in the following chapter that Akkadian extended nominals likely possess a K(ase) projection), this feature-transmission/valuation will take place, whereas a reduced nominal with no such projection will be inert to Case when it transits Spec,vP.

A further separate issue could arise with movement through the vP phase edge. If the CHRC head is a 'head' in a phrase-structural sense, it might be thought that it should not be able to move to a phase edge, if one maintains that only maximal projections can move to a specifier position. The issues of maximal vs. minimal projections have become less important in recent years in Merge-based frameworks; even if we wish to maintain that only maximal projections can move to phase edges, this is not a serious problem because, in fact, we are forced to conclude that the CHRC head, despite being drastically reduced by comparison with the normal full extended nominal projection, is not 'minimal' in this sense. Recall that CHRC heads retain gender morphology. In ch. 3 we will examine and analyse a phenomenon of the structural reduction of nominals in a quite different syntactic context for which this is not the case, whose structurally impoverished projection is 'smaller' than that of CHRC heads, at least in that it is genderless (strictly, incapable of showing nominal gender morphology). In light of this, we must assume that the

CHRC head is more complex than this still more impoverished nominal form. Furthermore, anticipating the discussion in ch. 3, we will be forced to conclude there for empirical reasons that there exists an even more primitive object underlying nouns and participating in certain processes of denominal verb formation (perhaps corresponding to a 'root' in the sense of Distributed Morphology and perhaps also in that of Semitic root-pattern morphology). As such, the CHRC head, despite being very much less complex than the full extended nominal projection, must be taken to be somewhat complex. For this reason issues surrounding movement of a genuinely minimal element do not arise in the analysis of the CHRC.

We have argued that the CHRC head does not receive case in its base position. Clearly, however, it is interpreted more or less as normal in its apparent role as an argument of the embedded clause, and is selected as such an argument unproblematically within that clause; as such, we must assume that it validly receives a θ-role. In much generative work the view has been adopted, following Chomsky (1981), that it is necessary for nominal constituents to receive Case not merely as an intrinsic licensing requirement of some kind, but also as a condition on their being visible for θ-role assignment or interpretation. Naturally any such condition on θ-role assignment will preclude any plausible version of the analysis being pursued here. There are, of course, certain much broader issues that can be taken against this hypothesis, such as the fact that PP and CP constituents can be argued also to receive θ-roles despite not apparently being associated with Case; cf. Pesetsky and Torrego (2011). If our analysis in this chapter is along the right lines, it may be a further small indication that there is an independence of the ability on the part of nominal constituents to successfully function as arguments from the typical case-requirement of nominals; Case, thus, is still a requirement in normal circumstances, violated only in some extraordinary syntactic environments, but a requirement which must be viewed as a licensing condition on nominal constituents themselves without reference to their ability to receive θ-roles.

Another potential problem would lie in the view that where a verb typically assigns accusative Case, it must obligatorily discharge this Case-assignment potential. Clearly this cannot occur for object CHRC heads in our analysis; nor, if it applies also to nominative Case in respect of T, can it occur for subject CHRC heads. In an Agree-type model this will not be a problem, however: if Case is simply an available feature of the relevant "assigner" (or if the unvalued "Case" feature

associated with nominals is in fact a counterpart to another interpretable feature of categories like v/V and T; c.f. Pesetsky and Torrego 2001, 2004), the latter will not be violating any requirement of a valid derivation if Case fails to be transmitted to a nominal; only an unvalued Case feature, or equivalent, associated with a functional category of the extended nominal projection will *require* to value Case. Thus the Case requirement can be seen, as our analysis necessitates, to be a requirement only of extended nominal projections, which smaller nominal projections can thus potentially violate if there exists an alternative possibility for licensing them in isolation from part of the typical higher extended nominal structure.

Our proposal also naturally raises the partly related question of verbal selection of nominal arguments in terms of the categorial nature of the constituent selected, in the context of the fulfilment of the RC-internal predicate's selectional requirements by a CHRC head. Under a strict view in which a verb selects nominal arguments which are uniformly of the maximal category of the extended nominal projection, frequently taken to be DP, the admittance of the selection of 'reduced' N! as an argument is problematic. There is by no means complete agreement on this question as a universal (cf. e.g. Chierchia 1998; Cheng and Sybesma 1999), and even in languages in which selection of DP-type arguments appears to be generally applicable, the notion of its entirely invariant application is open to certain important counter-examples. Briefly, we may mention one piece of evidence for the (restricted) possibility of reduced nominal structures to serve as arguments in the form of the so-called NPN construction (cf. e.g. Jackendoff 2008), which in some languages in which it occurs, including English, may appear with singular count nouns as a verbal argument whilst blocking the presence of normally obligatory determiners.[34]

The English NPN-type 'NP' can support adjectives ((90)c, (91)b) but not number ((90)b, (91)c; nor plausible quantifiers, cf. (91)e-f). It also lacks the

[34] It should be noted that not all languages which possess a more or less similar construction allow instances of it in argument positions. In Henry (2009) I discuss as one of the environments of the Classical Syriac 'absolute state' a flexible complex of nominal 'repetitive' constructions along the lines of the so-called NPN construction, capable of variance in number, occurrence in a variety of surface syntactic arrangements including NN and PNN in addition to NPN, and at least slightly greater range of interpretation than the English NPN construction. Nonetheless, the Syriac construction, unlike the English semi-equivalent, does not occur in argument positions. This might have something to do with the lesser relevance of the particular prepositional configuration in the case of Syriac; perhaps the preposition in the English construction provides the extraordinary form of licensing for the structurally reduced nominal constituent, whereas the Syriac equivalent, to which the preposition is not crucial and which is primarily marked by the 'absolute state' morphemic paradigm, has no such extraordinary licensing potential.

possibility of overt determiners, despite their usual obligatory occurrence with English count nouns (cf. (91)d). The nominals here are clearly therefore reduced nominal projections in our sense, albeit not exactly parallel to the CHRC head. Despite this, they have, at least with certain prepositions, a fairly free occurrence within these restrictions in argument positions.

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(90) a. The hospital treated coffee-drinker upon coffee-drinker for caffeine poisoning that night.
b. *The hospital treated coffee-drinkers upon coffee-drinkers [...]
c. We mess up ploughed field upon ploughed field every single year.

(91) a. Voter after voter streamed into my office that morning.
b. Angry voter after angry voter streamed into my office [...]
c. *Voters after voters streamed into my office [...]
d. (*A/*the) voter after (*a/*the) voter streamed into my office [...]
e. (*Some) voter after (*some) voter [...]
f. *(*Several/*many) voters after (*several/*many) voters [...]

A situation is easily envisaged, therefore, in which a nominal projection of various ‘sizes’ (regardless of the absence of D or other maximal element) may in principle fulfil the selectional requirements of the relevant predicate, but in which the nominal projection itself must itself be licensed separately (normally by Case via D or equivalent, but in certain extraordinary environments by certain other processes). In other words, the selection of nominal arguments, if it is c-selection at all, must be of a sufficiently flexible type that it can be satisfied by projections of varying levels of complexity constituting subparts of a certain extended projection. Such a situation would be in line with the facts regarding Akkadian CHRCs, which above all make it clear that such a relative-clause head need not take the form of a full extended nominal projection.

Having reached this point, we are now in a position to explore options for a more specific analysis of the syntax of the CHRC and its aberrant head. The major basic issues with regard to the structure of CHRCs with which we have not yet explicitly dealt are the question of the landing site of the CHRC head, and how our answer to this question may account for the appearance of the noun in the construct

state form. We have already proposed above that the 'construct state form' in CHRCs is the result of, or appears in parallel with, some form of licensing process for reduced nominals; this process must be associated with the apparently unusual movement to which the CHRC head is subject.

Unfortunately, in the absence of native speakers, it does not appear possible to adduce much further empirical evidence from within OB which would suggest exactly what this site is, or what drives this movement; however, in what follows I will first attempt to develop a line of analysis for these questions which is consistent with the known facts and which is intriguingly suggested to be a promising possibility by a comparison across Akkadian dialects. Subsequently to this, I will examine one other major possibility which can make at least many of the same predictions in a rather different way.

Subordinate clauses containing overt verbal forms in OB are, where morphologically possible (essentially, where other verbal suffixes apart from suffixal accusative and dative pronouns do not occur), obligatorily marked as subordinate by a morpheme realised as *-u* suffixed to the verb, typically known as the 'subjunctive' or 'subordinative' in the literature.[35] We have seen this morpheme (glossed SBJV throughout) in many examples of both *ša*-RCs and CHRCs in this chapter. It is, however, generally associated with virtually all subordinate clauses; cf. (92)-(93), for example.

(92) *kīma* *aḫ-ū-ki* *palḫ-**u*** *ul*
that brother.SG-NOM-POSS:2fs fear[STAT.SBJ:3ms]-**SBJV** NEG
t-īdē
SBJ:2-know[SBJ:Msg].INTERROG
"Do you not know that your brother is afraid?"
AbB 7: no. 45, ll. 17-18 (Kraus 1977).

[35] For a detailed up-to-date summary of the morphological properties of the subjunctive morphemes across Akkadian dialects and detailed references to the descriptive literature see Kouwenberg (2010: 220-232), where a proposal concerning the diachronic origin of both *-u* and *-ni* subjunctives is also developed, with references to prior and alternative views. For an older treatment of the distribution of the subjunctive see also Eilers (1968).

(93) *aššum* *{āl}-šu* *i-zēr-**ū**-ma* *i-n-nabit(t?)-**u***
because {city}-POSS:3ms SBJ:3-hate.PRET-**SBJV**-CONJ SBJ:3-Nstem-flee.PRET-**SBJV**
ašš-at *munnabt-im* *ana* *mut-ī-ša*
wife-FEM.SG[CSTR] fugitive-GEN.SG to husband-GEN.SG-POSS:3fs
ul *i-târ*
NEG SBJ:3-return.PRES[SBJ:SG]
"Because he disdained his city and abandoned it, the wife of the fugitive will not return to her husband."
Codex Hammurabi §136 (col. xxix/r.vi), ll. 68-73.

Intriguing is the fact that the CHRC appears to be the only context in which this subordination-marking morpheme occurs in the absence of a separate overt subordination marker at the left edge of the subordinate clause (typically, an element plausibly classifiable as a complementiser or *wh*-item). It is tempting therefore to speculate that a much-reformulated return could be made to the traditional Assyriological proposals, untenable in their normal form, that the construct-state head of a CHRC itself 'marks subordination'; these proposals are usually in the form, necessarily rejected here, that in some sense CHRC heads occupy the same syntactic 'slot' as *ša* combined with a unitary analysis of the structure of CHRCs and *ša*-RCs, equivalent in our terms to an external-head analysis (cf. especially Cohen 2008); but we could perhaps speculate that the CHRC head attaches to the syntactic object which is realised by, or a null element closely associated with, the 'subjunctive' morpheme.

If this intuition were along the right lines, it is interesting to note that the distribution of morphemes marking subordination is rather different in the Assyrian dialects of Akkadian. As noted in fn. 1, the Assyrian varieties of Akkadian seem to lack CHRCs entirely. Assyrian marks the so-called 'subjunctive' both with a morpheme identical in form and distribution to the Babylonian *-u* and, for those verbal forms to which the *-u* morpheme cannot attach in Babylonian (and likewise does not attach to in Assyrian), a separate morpheme *-ni* which is unique to Assyrian and which, in these cases, is obligatory. There is no exclusivity between *-ni* and any other verbal suffix, as there is with *-u*; it can occur after subject-agreement suffixes and after a ventive suffix (cf. the summary comparative table of selected subjunctive-marked verb forms in (94)). Apparently optionally in Old Assyrian, and more generally in later forms of the Assyrian varieties, these two subjunctive suffixes can cooccur as *-ū-ni* (sometimes separated by a suffixal pronoun) on some

verbal forms; the *-ni* morpheme appears following accusative and dative pronominal suffixes where these occur, while the *-u* morpheme always precedes such pronouns.

(94)	*iddin* +	Babylonian	(Old) Assyrian
	-	*iddin-u*	*iddin-u / iddin-ū-ni*
	SBJ:3fpl	*iddin-ā*	*iddin-ā-ni*
	VENT	*iddin-am*	*iddin-an-ni*
	ACC.3ms	*iddin-ū-šu*	*iddin-ū-šu / iddin-ū-šū-ni*
	VENT+ACC.3ms	*iddin-aš-šu* (< **am-šu*)	*iddin-aš-šū-ni*

Given the status of *-ni* vis-à-vis agreement suffixes and suffixal object pronouns, it is clear that *-ni* must have a different status in underlying structure from *-u*. Furthermore, given that (on the surface at least) the spellout possibilities of *-u* are partially implicated in the environment of the *-ni* morpheme in Old Assyrian, the two would seem to be interrelated in structure in some way. Without further detailed scrutiny of the subjunctive in the Assyrian dialects which is beyond the scope of this study it is difficult to develop a solid empirical argument about their interrelation, whose conditions and dependencies remain somewhat unclear at least in OA (cf. Kouwenberg 2010: 222-3); while part of the implicational relationship is clear in that, where *-u* cannot occur for morphological reasons, *-ni* must occur in OA, where *-u* does occur there is variation, not clearly understood, in the occurrence of *-ni*.

Kouwenberg (2010: 220) characterises the *-u* morpheme as a "verbal ending" and the *-ni* morpheme as an "enclitic particle", principally, it seems, because of the linear order of morphemes in the complex of verbal 'affixes'. The Assyrian *-ni* can appear in at least one syntactic environment where the Babylonian *-u* has no occurrence in any morphological sub-environment: on nominal and other predicates of null-copula-like structures, as in (95). This seems further to support the view of that *-ni* is clitic-like in that it can cliticise onto a variety of categories, unlike *-u*, which can be morphologically blocked by other verbal suffixes and seems to be associated solely with some particular position in the extended verb-tense projection, never with non-verbal material (this assumes that the 'stative' involves a verbal projection, a view which is not uncontroversial in the descriptive literature; that this is indeed the case is the view we will adopt following our discussion of the stative in ch. 3).

(95) *kīma* [PN] *aḫ-ū-kā-ni*
since PN brother.SG-NOM-POSS:2ms-'SBJV'
"Since [PN] is your brother."
BIN 4: 223, 3-5 (cited in Kouwenberg 2010: 223, slightly adapted).

This is one of very few divergences between Babylonian and Assyrian morphology which are plausibly differences of structure, or the overtness of an element of structure, rather than being merely the result of alternative surface forms for what are plausibly the same underlying morphosyntactic entities. Since it relates precisely to the marking of subordination, and since the CHRC is the only environment in OB in which the subjunctive marker is found in a subordinate clause which is not preceded by an overt complementiser or *wh*-item of some kind, it seems initially plausible that some factor underlying or resulting from this divergence in the marking of subordination between Babylonian and Assyrian could be implicated in the apparent impossibility of CHRCs in Assyrian. If true, this would conversely imply that something about the Babylonian subordination marker or associated structure, in the absence or covertness of the element underlying the Assyrian one, is associated with the licensing and final position of the CHRC head. This is also the only clear overt morpheme in the relevant structure which seems to be a reflex of a functional element probably located between C and T in the structure, hence in precisely the area in which we expect the CHRC head's landing site to be if the relevant peculiarities of the CHRC arise because the head is trapped beneath the clausal boundary formed by C.

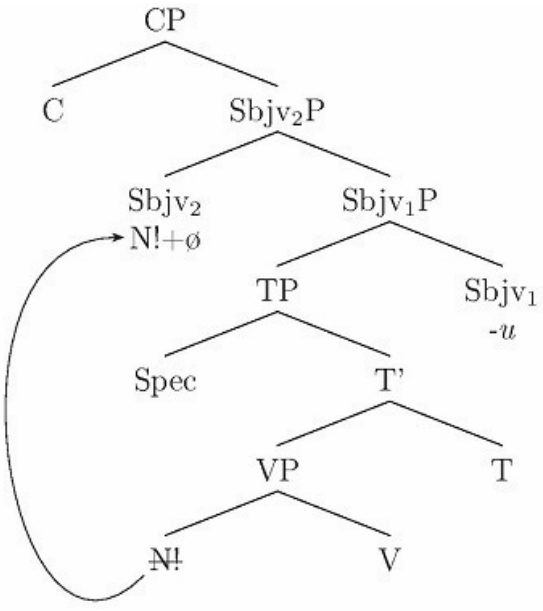
Notice that on account of the typology of overt subordination-marking in Assyrian, all subordinate clauses will be marked by one or other (sometimes both) of the apparent subordination-marking morphemes *-u* and *-ni*, in addition to complementisers, etc. In Babylonian there is no (overt) *-ni* morpheme; *-u* is overt, but does not reliably appear, because it is morphologically blocked by the presence of certain other verbal suffixes (these are the environments where *-ni* is obligatory in Assyrian).

Assume that an equivalent of the projection that hosts *-ni* is in fact present in Babylonian, hosting a covert functional head. In all cases except the CHRC phenomenon, an overt subordinator, usually a complementiser of some sort, will appear, presumably in C. Let us assume that this covert functional head typically

incorporates to the overt complementiser. If CHRCs involve a zero complementiser or empty/null C, nothing will support this covert head, or mark subordination at all.

Although the CHRC head is clearly not a simple head in phrase-structural terms, we can argue that, as a partial extended projection probably headed by a functional category (perhaps *n*, or a gender head), it will be capable of incorporating to a functional head, if not a lexical one (after the schema of incorporation possibilities of Borer 1996, 1999). Since the CHRC head requires licensing by some extraordinary mechanism in the absence of Case, and the covert subordination morpheme extraordinarily requires support (and/or the clausal left periphery somehow requires subordination to be reliably marked by *some* overt element), this conjunction of properties could result in the raising of the CHRC head to incorporate to this functional head. CHRCs are thus predicted to be absent in Assyrian, despite the very close apparent similarities of virtually all other relevant aspects of the grammars of OB and (at least) Old Assyrian, because in Assyrian the equivalent head always has the option of spelling out as the clitic *-ni*. Because of this option no environment for the licensing of the reduced nominal projection will be available, so CHRC heads are ruled out. This leaves us with something like the following schematic tree representation for a CHRC relativising an object.

(96)



This idea also seems to account for a fact which would otherwise be puzzling for an analysis in which the CHRC head's landing site is a position lower than C. We might expect that a CHRC could then be embedded under *ša* in C (followed in linear

order by the CHRC head, followed by the remainder of the relative clause). This never happens. However, in the particular account we have just suggested, this is ruled out naturally: the projection hosting the *-ni*-equivalent functional head requires support only in cases where C is not overt. If C *is* overt, hence if *ša* is present, this overt C will support it, and so no possibility of incorporation to it by a reduced nominal projection will arise. Any attempt to derive a relative clause containing a CHRC head under these circumstances will therefore 'crash'.[36]

Andrew Radford (p.c.) suggests that a potential alternative would see the CHRC head move into C. C may plausibly be considered a case-resistant position; in English, for example, it cannot be governed by a preposition:

(97) a. *He struggled with that he was late.
b. *He alluded to that there was a plot.

This view of the CHRC head as a 'substitute complementiser' might ensure that the CHRC head in C did not receive Case, even though – contrary to our previous suggestions for a line of analysis – it would technically be potentially accessible to the outer nominal structure. Radford assumes that this must be head movement on account of the landing site being a head position. Head movement is utilised in Radford's suggestion to rule out phrasally complex CHRC heads. We argue that an analysis of CHRC heads as simple 'heads' in the phrase-structural sense is not tenable, at least in straightforward terms. We will see in chapter 3 that we require a kind of reduced nominal projection smaller than that of the CHRC head to account for noun 'statives', but still operating semantically and morphologically as a 'noun'; and one still smaller than that, perhaps corresponding to a 'root', to account for certain other processes discussed there.

It is possible that Radford's account could be altered so as to accommodate movement of a not entirely simplex partial extended projection, in which case it would turn out not very dissimilar to the possible account previously developed

[36] A problem might be that the look-ahead required from the pseudo-*ni* projection to the content of C is countercyclical under some theoretical interpretations of this proposal (though if we allow a derivation resulting in N!-incorporation followed by insertion of overt C simply to crash, in this case perhaps because overt C requires the pseudo-*ni* projection to be covert for some reason, probably selectional, we might escape this). Alternatively, if we adopt recent proposals that processes within a phase can be exempted from such a cyclicity requirement this should not be problematic.

above, but with the properties ascribed to the intermediate projection there ascribed partially to C, and the barrier effect recast as a matter of the case-resistant status of C.

If the latter account can be made to function, there seems to be relatively little to choose between them in the absence of still more detailed and nuanced data from OB. The only weakness of this version relative to one outlined previously (which, since it concerns a variety we are not discussing and are not required to predict, is not really classifiable as a direct weakness) is that it does not seem to predict the absence of the CHRC construction in Assyrian.

Both of these options suffer from the slightly stipulative assumption of a null or empty C head, which has little if any attestation in OB outside this construction. There appears, however, to be no way around this implication if we wish to produce a workable account of the phenomenon. Either we require the differentiation offered by the null complementiser (and probably also the barrier it provides) in order to compel some other element to attract the CHRC head to its final position, or C must do this itself, hence must be null/empty before the head is raised.

Either of these possibilities, if workable, can predict all the general properties of the CHRC. The phrasal structural impoverishment of the head is predicted mostly, if not entirely, through lack of Case. This and the impoverishment of the functional material in the extended nominal projection is predicted by the fact that only such an impoverished nominal projection can successfully undergo an incorporation of the type suggested here to occur as the extraordinary licensing mechanism of CHRC heads in the absence of Case. The absence of the upper functional material rules out resumptive pronouns in the relativisation site, thus also producing the restrictions on relativisation possibilities on the basis of this impossibility.

We have left aside till this point one matter which we raised in the extended discussion of restrictions on the CHRC in section 1.3. As we noted there, it is probable (but perhaps not establishable to the extent that most of the other restrictions are) that CHRC-containing constituents cannot function as matrix subjects except in the unusual case that the matrix clause has no overt subject agreement. We have effectively predicted the possibility of this result too, since the assumed nominal shell of the CHRC (akin to the external D in the Kaynean raising analysis) will not have access to at least some of the relevant ϕ-features (including at least gender, marked on the head, which does not escape the relative clause); in this instance one might predict precisely this result.

The null-copula example in (39), of course, produces a complication. Let us assume on this basis that CHRC-containing nominal constituents may be subjects of the outer clause only where overt subject agreement is not present (which, as noted above, should perhaps be a tentative conclusion), resulting in a restriction in effect to null-copular clauses. If this is the case, the possibilities for explaining this seem to lie in one of two directions. Either the structure of OB null-copular clauses does not involve the element which otherwise drives the requirement; or the lack in this case of the need to spell out agreement overtly somehow rescues the derivation. The latter seems theoretically dubious if the failure occurs at the level of underlying features, i.e. in terms of the outer structure's lack of access to the relevant ϕ-features. In this case, if this is a correct description of the restriction, we would have to assume that the putative T head or equivalent in the like of (39) lacked agreement features (since subjects in these cases plausibly agree in an altogether different configuration with the complement rather than T, this is not implausible; cf. e.g. Al-Horais 2006).[37]

One final note is necessary. We have ruled out most phrasal complexity in CHRC heads through absence of Case and structural impoverishment of the extended projection. The one *possible* lacuna here concerns complements of N which might not require case. There is no attestation of these in CHRCs in the data known to me, but ascertaining their status in this matter more precisely is very difficult. Postnominal PPs of any kind are relatively unusual in Akkadian (see 3.1.4.4 in ch. 3

[37] An interesting converse issue occurs in that CHRC heads do cooccur with overt subject agreement morphology in the embedded clause when they function as subject of that clause, which they regularly do. Despite this, there are no clear cases of CHRC heads controlling *differences* in overt verbal subject agreement marking inside the relative clause, if we dismiss the possible feminine plural in (43), which is here judged unlikely to be a CHRC. If plurals are barred in CHRCs, which is very probable, all CHRC heads which are subjects of the relative clause will thus produce third person singular subject agreement. Babylonian Akkadian marks no overt gender distinction in verbal subject agreement in the third person singular (uniformly marked with the prefix *i-*, the general third person marker in Babylonian, and zero suffix; gender distinctions are found in the second person singular and the third person plural, which each share respective prefix forms but show different suffixes). The existing data can thus be compatible either with the view that CHRC head subjects do control overt agreement inside the embedded clause despite their structural reduction (because, despite this impoverishment, they do possess the relevant ϕ-features) but, in the absence of the possibility of plural CHRC heads, this simply fails to be reflected in any visible distinctions for the obvious reason that only third person singular forms will result; or that in the absence a full extended nominal structure some deficiency results, with the *i-*zero third singular agreement morphology as a default. The latter might seem to throw into doubt the explanation of the possible matrix-subject restriction as a failure of ϕ-agreement in that environment; however, it does not in fact seem that this has a necessary impact on the issues of CHRC subjects of an outer clause, as the structure of the internal head and that of the external nominal structure are not similar material. Alternatively, if it turns out thanks to new data that the slightly uncertain matrix subject restriction does not hold, we could use this notion of default third singular agreement to salvage our analysis if, as I judge very likely indeed, plural CHRCs are impossible.

for some examples). PPs of the relevant kind are rarer still and, what is more, complements like this might often be expected to surface as construct possessives; these would seemingly be ruled out in CHRC heads on account of the embedding of the possessum noun inside a more complex structure, rendering inoperable the incorporation mechanism we suspect underlies CHRCs, and indeed also by the fact that construct possessives arguably (see our analysis in the following chapter; this is also true of most other analyses) require the presence of higher functional projections in the matrix nominal constituent than are possible in the case of CHRC heads.

1.6 Conclusion

In this chapter we have reviewed the facts of the construct-headed relative clause construction in Old Babylonian, and it has been proposed that it instantiates an unusual type of relative-clause structure, whose head, though appearing overtly at/adjacent to the left edge of the relative clause, does not fully take on the properties of the matrix-level nominal constituent of which the relative clause is part. Equally, it does not appear to possess a full nominal structure in relation to its function in the embedded clause either. It thus has a cluster of interrelated properties which seem to distinguish it both from canonical externally-headed relative clauses of various kinds and from internally-headed relatives.

Interestingly, the CHRC construction provides a direct piece of evidence that whilst the full, extended nominal projection in Akkadian necessarily bears case features and makes them in some sense globally available to the nominal structure (hence the possessive construct-state has some case-marked forms, and adjectives will show the relevant case overtly in construct possessives even when the construct-state noun does not), some reduced form of the nominal projection need not necessarily stand in a direct association with the typical maximal category of the extended nominal projection if another method of licensing is available to it, and thus N(P) need not necessarily have access to Case features, though we can presume that 'D(P)' must. CHRCs thus instantiate an unusual, but (at least in part) straightforwardly explained, instance of a context in which a noun or minimal nominal structure, in a language featuring widespread nominal case-marking, need not receive case features at all, and need not be in direct relation with a full extended nominal projection in relation to its own licensing.

One further point of interest is the place of the CHRC construction within the schema of relative clause structures more generally. Our view of the structural nature of externally-headed relative clauses as a whole has a great deal of influence upon this issue. Certain of the objections of Borsley (2000), especially as relate to case assignment in typical EHRCs, remain potent in arguing for the comparative economy of a 'base-generated' external head analysis of typical EHRCs, as against the raising analysis. However, as I have argued above, there are strong reasons for assuming that Akkadian CHRC heads must be generated elsewhere than in a matrix-level nominal position. Having established that an external-generation analysis of CHRCs is untenable, a version of the raising analysis provides a reasonably economical account for the peculiarities of this structure. This does not, of course, in itself entail that the raising structure is the only possible form of derivation for the surface category called 'relative clause' (for arguments that multiple structures underlie superficially more or less similar kinds of relatives, see for instance Bhatt 2002; Hulsey and Sauerland 2006).

The nature of CHRCs within the wider context of relative clause structures therefore depends upon the view taken of the structural properties of EHRCs as a whole. On the one hand, if the possibility of a raising derivation of typical EHRCs is not adopted (or does not permit generation of the relativised nominal as a minimal, non-DP, structure), the CHRC is a type of internally-headed relative clause which permits (and indeed forces) dislocation, and thus transparent syntactic identification, of the head – leading us back to what is essentially a heavily revised and more clearly defined parallel to Johnson's (2005) characterisation of the CHRC. It is interesting from this perspective that true IHRCs are typically (perhaps universally) found in languages displaying apparent right-headed phrase-structural configurations; if one accepts a conception of phrase structure in which this variability is possible, Akkadian is essentially a split language in this regard: Akkadian TP+VP is right-headed, whilst nominal and other categories (including P and C) are left-headed. One may speculate on whether the existence of the Akkadian CHRC as something like a "demi-IHRC" could be related to this fact.

Alternatively, if 'bare' insertion of the relativised nominal can be taken to be the structure of some typical (at least, some restrictive non-*wh*) type of externally-headed relative clause, the Akkadian CHRC is essentially an EHRC in which 'externalisation' proper has coincidentally failed. With the restriction of the structure

of the head to N! in the relativisation site necessitating that the relativised noun have some other source of licensing than Case, the CHRC head indeed finds (or is found by) some source of licensing lower than the left edge of the clausal structure, and thus is licensed whilst remaining inaccessible to the RC-external nominal structure.

Whilst it is certainly inadvisable to allow an idiosyncratic phenomenon of an extinct language such as Akkadian to decisively determine our views of relative clause structure as a universal, it must be noted that the latter perspective is substantially more elegant in situating the Akkadian facts in a broader context. Both perspectives rely upon two processes, viz. the presence of the reduced structure only in the relativisation site, and an extraordinary environment for the licensing of reduced nominals. In the 'dislocated internal head' approach, the restriction to N! must be taken to be peculiar to the case of dislocated IHRC heads; it functions as a device applicable solely to CHRCs and possibly to dislocated IHRC heads in some other languages, though as we have noted the divergences here are at least as marked as the similarities. This would not be an especially economical account. Structures of the CHRC type are, clearly, at best a rare phenomenon cross-linguistically; it is thus unlikely that a unique or highly idiosyncratic single mechanism is required to produce their structure. In the 'failed externalisation' approach, however, CHRCs are naturally produced as a byproduct of two existing processes with independent wider application, viz. the potential, at least, for reduced nominal projections to be inserted in the relativisation site in non-*wh* EHRCs in general, and this construct-state-style licensing of partial nominal structures.

2 Possessive Structures and the Construct State

2.0 Introduction

This chapter considers the construct state (CS) in Akkadian and across Semitic in its traditional (DP-internal) context. As noted in the previous chapter, the construct state is a 'state' of the noun in Semitic languages, which centrally marks the possessee in a possessive construction. There is an extensive generative literature on the construct in Arabic and Hebrew (see *inter alia* Ritter 1987, 1988, 1991; Borer 1996, 1999; Siloni 1996, 1997, 2000; Shlonsky 2004; Bardeas 2008; Ouhalla 2009), but the analysis of the construct in these languages has consistently proved problematic. In this chapter, we consider the construct in a crosslinguistic light, and in view of the rarely-examined Akkadian data, with the aim of shedding light not only on the construct in Akkadian, but across Semitic, developing a new analysis in light of the Akkadian facts.

2.0.1 The Construct State as Terminology

It is necessary before examining construct 'possessives'[1] in detail to clarify a point of terminological confusion which might otherwise arise at the interface between the descriptive and the generative traditions relating to the construct state. In the descriptive literature on Semitic languages, the term 'construct state' consistently refers to the category established by abstraction over the morphophonological form(s) in which the relevant possessum noun surfaces, as distinguished from other 'states' of the noun. It is therefore applicable at the 'word level', in traditional terms. The 'construction' in which nouns taking the construct-state form partake is the subject of wide terminological variation without any clear standard: 'possessive construction', 'genitive relation', and so on.

By contrast, the reverse has generally been the case in the generative literature on the construct, at least since Ritter (1987):

> "The term construct state (CS) refers to a type of "noun phrase" in which the head N is immediately followed by a genitive phrase to

[1] This term is used loosely as a convenient summative label for those forms which appear in the morphophonetic construct state form in its 'DP-internal' manifestation which is widespread across Semitic, and should not be taken to indicate that the noun in question necessarily receives an interpretation which can be strictly labelled that of a 'possessee'. As with very many 'possessive' constructions crosslinguistically, the 'possessee' nominal naturally has significantly wider possibilities of interpretation relative to a 'possessor' than the terms applied literally would indicate.

which it bears some relation, such as possessed-possessor or theme-source" (Ritter 1987: 522)

"Construct state" in the usual generative sense therefore refers to the entire nominal constituent within which the 'possessive' relation arises. Amongst publications more or less adopting this stance, there is no standard term for the possessum noun, nor for its morphophonological form (or, more abstractly, its 'state' in the traditional descriptive sense). In some publications within the generative field, the term is used ambiguously, and vacillates between the two usages.

In the present study, the former option is adopted. A noun appearing 'in the construct state' therefore appears *in the relevant specific word-level* (morphological/phonological) *form* generalised over in that term. Following this decision, the establishment of certain further basic terminology to refer to other elements at play in the syntactic environment of construct-state nouns is required. Since a standard nomenclature has yet to develop here, the terms applied in this study are, to the author's knowledge, innovative.

Specifically, we require terms for two notional surface entities above the 'word-level'.[2] Firstly, for the entity comprising the construct state-marked noun itself and the immediately following 'genitive/possessor' noun (with their affixes, if any), excluding all other material in the wider extended nominal phrase. This is here termed a 'construct complex' (CS complex). It should be noted that this term is adopted descriptively, and no claim is implied for its linguistic reality (it may be a phonologically or prosodically relevant entity at a post-syntactic level; cf. fn. 11 for a few further comments). Thus, in the following Arabic example, *fostān al-bint* constitutes a CS complex, to the exclusion of the adjectives *al-ḥilwa* and *al-jadīd*:

(1)

fostān	*al-bint*	*al-ḥilw-a*	*al-jadīd*
dress.M.SG	DEF-girl	DEF-beautiful-FEM	DEF-new.M.SG

"the beautiful girl's new dress"

Saudi (Makkan) Arabic, Bardeas (2008:4), gloss slightly adapted

[2] Note that the establishment of these descriptive terms does not imply anything about syntactic properties at a deeper level of analysis.

Secondly, the complete extended nominal constituent within which the construct complex occurs. In what follows this will be referred to as a Construct-State DP (CSDP).[3]

2.0.2 Possessives in Semitic languages

In many Semitic languages (including Hebrew and many varieties of modern Arabic, as well as Akkadian), there are, broadly speaking, two syntactically divergent forms of possessive-type constructions. One features a head/possessum noun in the construct state and displays the peculiar syntactic properties which will occupy much of the discussion below. No overt marker of the possessive relation plausibly analysable as syntactically separate from the CS complex is present (those not separable from the CS complex comprise construct-state morphology itself, and genitive case-marking on the possessor nominal in languages where this is relevant). The other does not manifest a construct-state head (the head displaying, typically, the morphological characteristics of the 'default state' of the given language); the possessive relation is marked overtly by genitive case-marking of the possessor where a feature of the given language and, more significantly, by a functional element 'prepositional' (in the strictly descriptive sense) to the possessor noun. These functional elements are such as the Hebrew *šel*, the Akkadian *ša*, and various seemingly diachronically unrelated markers across modern varieties of Arabic. This second type of possessive construction does not share the obvious syntactic peculiarities of the construct-state possessive construction, as will be seen below.

Thus, summarising, we may schematise the simplest surface differentiations, prior to detailed consideration of the syntactic properties of CSDPs, as follows:

[3] As noted in the general introduction, Akkadian has no transparent overt category of determiners. As in the latter part of ch. 1, DP is used here, as frequently throughout the generative literature, as a cover term for the complete extended nominal projection. It should not be taken to prejudge either the question of whether a functional category D is relevant for the analysis of Akkadian, or whether the category D, in Akkadian or generally, is in fact the highest functional element in the nominal phrase, whether it is further decomposed, etc.

(2) a. $N_{possessee}$.CS $N_{possessor}$(-GEN) (CSDP)

b. $N_{possessee}$.SR[4] P[5] $N_{possessor}$(-GEN) (non-CS possessive)

The chapter is organised as follows. Section 2.0.3 below lays out preliminaries to the subsequent discussions by providing an overview of many of the core facts surrounding the construct phenomenon. Section 2.1 reviews the major lines of analysis which have been pursued in the generative literature on the analysis of the construct phenomenon in Arabic and Hebrew. Section 2.2 introduces the particular peculiarities of the Akkadian construct construction, discusses the new light in which some of the construct phenomenon's most significant and most difficult properties must be viewed once Akkadian informs the crosslinguistic assessment of its behaviour, and develops a novel analysis of their properties in light of the preceding discussion.

2.0.3 Construct State Possessives across Semitic: Core Properties

This section overviews those core surface properties of the construct-state possessive 'construction' which have led to its being viewed as a separate locus of interest in the generative analysis of nominal structure. Drawing mainly on previously known properties of the construction in Hebrew and Arabic, this outline is intended to lay the ground for subsequent discussions of existing generative analyses of the construct phenomenon, further particularities of the data, and novel issues in the Akkadian facts. Certain syntactic issues largely dealt with only in the generative tradition, notably those surrounding nominalisations, are passed over here, to be returned to in section 2.1.

2.0.3.1 The Construct State Form

Complex, and on the surface quite language-particular, facts surround alterations to the stem of the construct-state noun relative to default states/citation forms/etc. This has been the traditional locus of descriptive interest in the construct phenomenon, but

[4] Although the term is not descriptively applicable outside Akkadian, at least not in simple terms, I use SR here (= *status rectus*) to generalise over the 'default' nominal state of any relevant Semitic language.

[5] Again, P(reposition) is here to be interpreted as a purely descriptive label ('(generally) invariant functional element which uniformly immediately precedes the possessor DP'), without prejudging syntactic analysis.

has only received sporadic and limited attention in the generative literature. As the issues here are complex and interact with higher-level facts of the construct phenomenon, the review here will be brief and indicative, leaving further and more systematic discussion for subsequent sections of this chapter.

In modern Hebrew, the construct state as form has a variety of special manifestations, amongst the most notable of which are the following effects:[6]

			Default form	CS
(3)	a.	Masculine plural suffix	*-im*	*-ey*
	b.	*-t* alternation in feminine singulars	*-a*	*-at*
	c.	Various internal stem alterations, e.g.	*bayit*	*beyt*

In many varieties of modern Arabic, stem alternations in the strict sense are largely absent. The primary relevant fact is a parallel to (3)b., namely the insertion of final *-t* in the construct-state form of feminine singular nouns, whose default-state form has the feminine suffix *-a*:

(4) a. *madras-a*
a. school-FEM (default state)
b. **madrasat* (when not CS)
c. *madras-at* *Salwa*
school-FEM.CSTR PN
"Salwa's school"
d. **madrasa Salwa*

adapted from Bardeas (2008: 4)[7]

-t here surfaces only in construct-state possessives and with pronominal possessors, not in non-CS possessives, or any non-possessive structure in the nominal phrase. In Arabic it is clear that this *-t*, followed by case morphology, was historically present in all such forms, including in the default state. A gradual process of phonological loss appears to have taken place, passing through an intermediate phase in which the *-t-* segment of the feminine morpheme *-at-*, together with the following

[6] The Hebrew alternations are complex, particular, and will not be reviewed in detail here. On the *-t* alternation in feminines see on Arabic immediately below. In Classical Hebrew the other effects, except for the masculine plural suffix alternation, seem to be clearly linked to loss of main stress on the construct-state noun, based on a rather convoluted set of facts regarding the phonological effect of the presence of stress in the default state relative to underlying forms.

[7] Bardeas (2008) focuses on Saudi (Makkan) Arabic; this particular data has broad applicability across many modern Arabic varieties.

case affix, was unrealised only in prosodically final positions (on this phenomenon in Classical Arabic cf. e.g. Wright 1896: 369-70; Haywood and Nahmad 1965: 511d), later followed by the general loss of case-marking across all major varieties of Arabic. Thus the historical trajectory in Arabic appears to follow the broad line in (5) (without, of course, ruling out further intermediate stages):

(5) *-t-CASE* realised throughout → *-t-CASE* dropped in prosodic-level final positions → loss of suffixal case morphology placing feminine morpheme *-at* in word-final position in all cases → *-t* only in construct state

Without entering into a detailed discussion here regarding possible underlying forms, it will be enough to note that the (re)surfacing of *-t* in these CS forms cannot be simply explained by phonological-representation analyses which have been applied to various well-known phenomena such as French *liaison*, whereby such segments are present in underlying phonological forms but lack structural positions, surfacing, generally, only when preceding vowel-initial words (typically devices such as the underlying absence of a skeletal-level position for the consonant, such that it surfaces only when it may attach to an empty onset position initial in a following word). In both Hebrew and most relevant varieties of modern Arabic, *-t* surfaces even where no transparent empty onset position can be discovered, as can be seen for the latter from the examples in (4) above.

As noted above, Classical Arabic does not display the *-t* alternation described above. Stem alternations in Classical Arabic construct state forms are rare. The principal facts concerning alternations in singular nouns consist of a few monosyllabic noun stems for which the vowels of suffixal case morphology, normally short even in the case of construct-state nouns, surface as long vowels. There is at least one instance of an irregular and perhaps (synchronically) suppletive stem showing behaviour along these lines:[8]

(6)	a.	*ab-u*	*ab-ū*	b.	*fam-u*	*f-ū*
		ab-a	*ab-ā*		*fam-a*	*f-ā*
		ab-i	*ab-ī*		*fam-i*	*f-ī*
		"father"	"father" (CS)		"mouth"	"mouth" (CS)

[8] The default-state forms in the left-hand columns shown in (6)a-b. would not generally surface without an associated definite or indefinite article (prefixal *al-* or suffixal *-n* following the case suffixes respectively). These are omitted here for ease of presentation.

In addition, dual and masculine plural forms in Classical Arabic lose final segments of their suffixal number morphology relative to the normal-state forms:

			Default form	CS
(7)	a.	Masc. pl. nominative	*-ūna*	*-ū*
	b.	Masc. pl. non-nominative	*-īna*	*-ī*
	c.	Dual nominative	*-āni*	*-ā*
	d.	Dual non-nominative	*-eyni*	*-ey*

One further relevant fact in Classical Arabic concerns the behaviour of so-called 'diptotic' case-inflection (nouns with a two-way case-marking distinction in the singular as opposed to the dominant three-way distinction). This will be returned to under section 2.0.3.3 below.

As will be seen above, morphological alterations to the (in traditional terms) 'word-level' construct-state noun relative to default forms generally take the form of reductions (of elements of suffixal morphology) and more or less idiosyncratic stem alternations or suppletions, but also include rather ambiguous suffixal cases (especially the Hebrew masculine plural) and the *-t*-insertion phenomenon, which does not appear amenable to a simplistic characterisation (as will be seen later, the *-t* alternation has normally been treated in the generative literature as evidence that the CS complex forms a single phonological word, perhaps taking on 'affixal' properties relative to the possessor noun in the CS complex). It will be noted that in these instances, all of which have informed the broad generative discussion of the construct phenomenon, 'addition' of any kind to default forms is not transparently present (assuming the *-t* insertion phenomenon in Hebrew and Arabic to be, at best, an alternation in the expression of gender/number morphology). There is, however, at least one case of what is, on the surface, a suffixal 'addition' as the primary overt reflex at the word level of the construct possessive construction: in the CS form of nouns in Ge'ez (an extinct Ethiopian Semitic language), a language largely unstudied in the generative discussion, a suffix, *-a*, is normally added to the stem (on the basic facts of the Ge'ez construct state see Dillmann and Bezold 1907: 324-328, 460-471).

2.0.3.2 Blocking of Determiners

Contrary to the variability and specificity of surface phonological-morphological effects of the construct phenomenon in various languages, surveyed in

section 2.0.3.1 above, most of the basic syntactic properties of the DP-internal construct construction, to be discussed over the succeeding sections, are remarkably stable across the Semitic languages (adjusting for certain peculiarities, such as the individual language's inventory of (overt) determiners).

Hebrew marks definiteness via a prefixal definite article, but has (generally) zero-marking for indefinite nouns. Many modern varieties of Arabic behave similarly. Classical/Standard Arabic in addition overtly marks indefiniteness in addition to definiteness. All of these markers of (in)definiteness are barred from appearing in association with construct-state possessee nouns; in other words, construct-state nouns must appear without overt (in)definiteness marking of any kind associated directly with the head noun itself.[9] The relevant basic patterns are laid out in (8)-(9). By contrast, non-construct possessives show no such restrictions on the realisation of (in)definiteness marking (cf. e.g. the Hebrew example in (14) below).

(8)	a.	*sifr-ey*	*ha-meshorer-im*	CS, no article
		book-CSTR.M.PL	DEF-poet-M.PL	
	b.	**ha-sifr-ey*	*ha-meshorer-im*	*CS with article
		DEF-book-CSTR.M.PL	DEF-poet-M.PL	
	c.	**ha-sifr-im*	*ha-meshorer-im*	*Default form with article, CS-like surface syntax lacking possessive 'preposition'
		DEF-poet-M.PL	DEF-poet-M.PL	
		"the poets' books"	(Hebrew, adapted with addition from Siloni 1996: 242)	

[9] Various Semitic languages lack overt articles entirely, and thus the construct phenomenon in these languages does not display this behaviour. Akkadian falls into this group, but as will be seen from the detailed discussion later in this chapter, facts concerning the realisation of case-marking complicate the matter significantly.

(9)	a.	*kutub-u*	*(a)š-šāʿir-i*	CS, no article, def. possessor
		book.PL-NOM	DEF-poet.SG-GEN	
	b.	**al-kutub-u*	*(a)š-šāʿir-i*	*CS with definite article, def. possessor
		DEF-book.PL-NOM	DEF-poet.SG-GEN	
		"the poet's books"		
	c.	*kutub-u*	*šāʿir-i-n*	CS, no article, indef. possessor
		book.PL-NOM	poet.SG-GEN-INDEF	
		"a poet's books"		
	d.	**kutub-u-n*	*šāʿir-i-n*	*CS with indef. article, indef. possessor
		book.PL-NOM-INDEF	poet.SG-GEN-INDEF	
	e.	**kutub-u-n*	*(a)š-šāʿir-i*	*CS with indef. article, def. possessor
		book.PL-NOM-INDEF	DEF-poet.SG-GEN	
		*"books of the poet's"		

(Classical/Standard Arabic)

In some descriptive accounts of the construct these facts are conflated with effects on the noun stem and its other suffixal morphology, as articles in Arabic and Hebrew display marked affixal properties. See also the remarks on adjectival definiteness concord in section 2.0.3.5.

2.0.3.3 Definiteness 'Spreading'

One of the most notable peculiarities of the construct phenomenon is that each CSDP must possess one and only one definiteness value, at least syntactically. This is usually stated to be the case not only on the surface level as outlined above (maximally one primary realisation of (in)definiteness marking within any CSDP), but also in the interpretive sense: in a construct-state possessive whose possessor DP in marked definite, the construct-state noun is also construed as definite; conversely, where the possessor DP is marked indefinite[10] (= not marked definite, in some of the relevant languages), the CS noun is also construed as indefinite. The evidence in the latter case is, however, far from unambiguous; see Danon (2008) for the contrary view that definiteness inheritance is purely syntactic. Thus only two out of the potentially four interpretive possibilities which would be possible if the possessee noun could take an independent definiteness value are possible in construct-state possessives.

[10] Presenting the facts in this way is already an analytical choice which has not been entirely uncontroversial; see section 2.1.1.1 below for the view advanced by Ritter (1987, 1988) that the realisation of Hebrew definite articles attaching to possessor nominals is in fact a reflex of a definiteness feature associated with the matrix determiner head. As noted there, however, the initial evidence in favour of associating the 'determining' definiteness value definitively with the possessor DP, even in syntactic terms, is quite strong.

Such restrictions are not present in the case of prepositional possessive structures, where possessor and possessee may vary in definiteness.

We leave aside here the complexities of the question of the presence or absence of truly semantic/interpretive definiteness 'spreading'. We may note however that syntactic inheritance of definiteness values (at least such as determine the realisation of *syntactic* definiteness features) is not in doubt. Various secondary syntactic diagnostics can be applied to demonstrate that a CS head noun is associated with a definiteness value of some sort, which is obligatorily the same as that of the possessor DP. Two such diagnostics are apparent in the following example (due to Danon 2007: 2, gloss slightly adapted): first, definiteness concord of the adjective *ha-gdola*, which unambiguously modifies the CS noun *hafganat*; second, the CSDP is preceded by the Hebrew object/accusative marker *et*, which precedes direct objects only if definite:

(10) *ha-mištara* *ivtexa* *et* *hafgan-at*
DEF-police secured ACC demonstration-FEM.SG.CSTR
ha-student-im *ha-gdol-a*
DEF-student-M.PL DEF-big-FEM.SG
"The police secured the big student demonstration."

One piece of syntactic evidence, rarely mentioned in this connection, is not entirely unmixed, however. In general, singular nouns in Classical Arabic (as well as 'broken plurals' which share the suffixal morphology of singulars) show a three-way case-marking distinction (nominative, accusative, genitive). A subset of nouns, however, take so-called 'diptotic' case inflection, showing only a nominative/non-nominative distinction (that is, lacking the distinction between accusative and genitive shown in the 'triptotic' inflectional pattern).

This 'diptotic' case pattern interacts in interesting ways with definiteness and definiteness marking. The basic facts are as follows: diptotic inflection on common nouns appears only on nouns construed as indefinite. However, the suffixal indefiniteness morpheme is obligatorily *not* realised on 'diptote' nouns:

(11)	a.	*kitāb-u-n* book. SG-NOM-INDEF	*kitāb-a-n* SG-ACC-INDEF	*kitāb-i-n* SG-GEN-INDEF	(triptotic inflection)
	b.	*dirham-u* dirham- NOM[.INDEF]	*dirham-a* ACC/GEN[.INDEF]	*dirham-a* ACC/GEN[.INDEF]	(diptotic inflection)
	c.	**dirham-u-n*	**dirham-a-n*	**dirham-a-n*	*(diptotic inflection with indef. marking)

Diptotic inflection, as noted above, is realised in the case of common nouns only with indefinites. That is, when the definite article is prefixed to a noun which shows diptotic inflection when indefinite, the noun takes triptotic inflection:

(12)	*ad-dirham-u* DEF-dirham-NOM	*ad-dirham-a* DEF-dirham-ACC	*ad-dirham-i* DEF-dirham-GEN

This 'reversion' to triptotic inflection occurs also in one other major context: when a diptote noun appears in the construct state. This appears to be the case even in indefinite construct possessives (that is, those whose possessor DP is marked indefinite). If the diptotic inflection were, as would initially seem plausible, associated intrinsically with indefiniteness, this would suggest, in some terms, the *absence* of indefiniteness directly associated with the CS noun in the case of diptote nouns when in the construct state.

Further complicating this already problematic situation is the fact that many diptote nouns are in fact proper names; although all diptotic proper names lack the definite article (as opposed to many non-diptotically-inflected proper names which do associate with a definite article), such proper names cannot be construed as *semantically* indefinite.

2.0.3.4 Strict Adjacency and Adjective Order

Generally speaking, the construct-state noun and the head noun of the possessor DP must be strictly linearly adjacent. In other words, the CS complex must be undivided by any other element in the nominal projection (at least, any element associated with

the extended projection of the construct-state noun[11]). In particular, adjectives and other modifiers may not intervene:

(13)a. *beyt* *ha-'isha* *ha-gadol*
house.CSTR DEF-woman DEF-big.M.SG
"the woman's big house"

b. **beyt* *ha-gadol* *ha-'isha*
c. **beyt* *gadol* *ha-'isha*
(Hebrew, adapted from Siloni 1996: 243)

The strict adjacency requirement of construct possessives is in marked contrast to the behaviour of non-construct possessives in Semitic languages. In these cases, the 'preposition'-possessor complex must appear following adjectives associated with the possessee noun (in other words, given the presence of any adjective modifying the possessum noun, the possessum noun and the possessor DP must *not* be linearly adjacent):

(14) a. *ha-bayit* *ha-gadol* *shel* *ha-'isha*
DEF-house.M.SG DEF-big.M.SG of DEF-woman
"the woman's big house"

b. **ha-bayit* *shel* *ha-'isha* *ha-gadol*
(Hebrew, adapted from Siloni 1996: 243)

[11] In various languages a certain very limited set of elements associated with the functional structure of the possessor DP may in fact intervene in the CS complex: for example, demonstratives associated with the possessor nominal may intervene between the CS noun and the head noun of the possessor DP in some languages (at least Classical Arabic and Ge'ez). In at least some languages, numerals and certain quantifiers may follow suit. The facts here appear to be quite complicated and are not as yet clear for all the relevant languages; this issue has not received significant discussion in the generative literature, and is comparatively little studied even in the descriptive context. It is not, however, seriously problematic to the analysis of the construct phenomenon, as all the elements involved are associated with the possessor nominal, typically with its high functional structure. We adopt the hypothesis here that no element *associated with the (extended) projection of the construct-state noun* may intervene linearly between that noun and the possessor DP, whereas elements in the high functional structure of the possessor DP which would typically precede it (a small category in most Semitic languages) may do so; the precise inventory of such elements across the various languages, and any restrictions on their presence in the CS complex, are left as an issue for future inquiry. If the hypothesis above holds, it would be possible to reformulate our definition of the 'CS complex' (to which we do not assign any syntactic reality, but which might be the unit in which any special phonological/morphological relation of the construct-state noun to the possessor phrase applies) as, roughly, 'the construct-state noun and the initial word-level (perhaps, stress-bearing) constituent of the possessor DP (whatever the latter may be)'.

2.0.3.5 More on Adjectives

It is frequently noted that, because of this adjectival 'displacement', CSDPs sometimes exhibit potential ambiguities:

(15) *beyt* *ha-'ish* *ha-gadol*
house.CS.M.SG DEF-man DEF-big.M.SG
(a) "the man's big house"
(b) "the big man's house"
Hebrew, Siloni (1996: 243)

This appears to be essentially epiphenomenal, however. Cases such as these are disambiguated by any feature (gender, number, case) differentiating CS noun from possessor for which adjectival concord applies in the relevant language. This can be seen from (13)a. above, where the alternative interpretation ("the big woman's house") is not available, because the adjective bears a specifically masculine morphological form. We can illustrate in more detail with case concord in Classical/Standard Arabic. (16)a-b. are unambiguous, whereas (16)c. is ambiguous, because both nouns display genitive case:

(16)a. *bayt-u* *(a)r-rajul-i* *(a)l-kabīr-u*
house-NOM DEF-man-GEN DEF-big-NOM
"the man's big house"
(*"the big man's house")

b. *bayt-u* *(a)r-rajul-i* *(a)l-kabīr-i*
house-NOM DEF-man-GEN DEF-big-GEN
"the big man's house"
(*"the man's big house")

c. *min* *bayt-i* *(a)r-rajul-i* *(a)l-kabīr-i*
from house-GEN DEF-man-GEN DEF-big-GEN
(a) "from the man's big house"
(b) "from the big man's house"

As some of the examples already cited will have indicated, Arabic and Hebrew show definiteness concord between nouns and adjectives. In both languages the morphophonological forms of the agreement-like elements marking definiteness on adjectives are identical to those of the affixal articles attaching to nouns. Note, however, that the quasi-articles associated with adjectives which modify construct-state nouns are *not* blocked from appearing, unlike those affixing to nouns themselves.

As with possessive structures generally, the construct state is potentially recursive; construct state possessives can be nested without intrinsic limit. The notable feature is that, regardless of the depth of this nesting, the above features apply: only one definiteness value, overtly realised, if relevant, on the final/most embedded possessor DP and inherited by all other nouns in the 'chain'; blocking of overt determiners with all construct-state nouns; modifiers such as adjectives of any noun in the chain are displaced to the end of the entire chain of nouns; adjectives are 'nested' in reverse linear order to that of the chain of nouns.

(17)a. exemplifies a basic recursive construct chain, with a single overt marking of definiteness. (17)b. exemplifies the obligatorily 'nested' order of adjectival modifiers.

(17)a. *bait* *oxt* *ṣaḥb-at* *om* *al-modira*
house sister friend.FEM.CSTR mother DEF-headmistress
"the headmistress's mother's (female) friend's sister's house"
Saudi (Makkan) Arabic, Bardeas (2008:4), gloss slightly adapted

b. *fostān* *al-bint* *al-ḥilw-a* *al-jadīd*
dress.M.SG DEF-girl DEF-beautiful-FEM DEF-new.M.SG
"the beautiful girl's new dress"

c. **fostān* *al-bint* *al-jadīd* *al-ḥilw-a*
Saudi (Makkan) Arabic, Bardeas (2008:4), slightly adapted

2.1 The Construct in the Generative Tradition

This section considers in detail the major lines of thought concerning the syntactic properties of the construct phenomenon which have been elaborated within the generative field. The overwhelming majority of this work has focused on Modern Hebrew and various varieties of modern Arabic.

The analysis of the construct phenomenon within generative grammar has frequently responded to and drawn from much broader theoretical developments, whilst relatively rarely making a serious novel contribution to most of the questions concerned, other than by offering additional examples in support of proposals already formulated on other bases (as with the early work of Ritter, which suggested N-to-D movement in the CSDP as a parallel to V-to-I movement in the clause, and which offered this and other facts as a further support to the contemporarily emerging attempts to set up parallels between clausal and nominal structure). More recently, analysis of the construct has responded to major pressures imposed by wide-scale reevalutions of basic theoretical conceptions of the syntactic component: most notably perhaps, the attempts inaugurated by Chomsky (2001) to remove the apparently problematic operation of head movement from narrow syntax, which a subsequent general literature on the question has taken in numerous divergent directions, and which cast into difficulty, or at least much greater complexity of formulation, the early head movement analyses, as well as later proposals which rely upon head movement not only in the CSDP but throughout Semitic DP structures.

As we have already begun to outline, and as will become more evident later as regards Akkadian, a great deal of the available empirical base upon which an examination of the syntax of the construct phenomenon might draw has yet to be brought to bear. Several major Semitic languages or groups which manifest the phenomenon and for which sufficient data may be available (at least Ge‘ez, the Aramaic group, and Akkadian) have yet to receive any significant attention within the generative tradition, although the most rudimentary Akkadian facts have been noticed once (see section 2.1.5.2 below). Nonetheless, existing discussion of the construct phenomenon is rich, varied, and within the confines of the data available from Hebrew and Arabic has been very detailed in many respects. However, there has been little evidence of any significant consensus over most points (even, in some cases, regarding the less abstract levels of characterisation of relatively simple empirical

facts), and the literature has frequently reflected a tendency to privilege reformulations of lines of analysis for the purposes of aligning the analysis of the construct with contemporary reevalutions of the general theoretical apparatus, and of exploring the implications for prior analyses of these external imperatives. The analysis of the construct phenomenon in its own right has thus failed to achieve even a rudimentary stability of direction throughout the period of its detailed examination from the late 1980s onwards.

2.1.1 Head Movement and the First Extensions of NP

It was with the work of Ritter (1987, 1988, 1991) that the construct phenomenon first emerged as a serious object of study in its own right within the generative tradition. This occurred in the context of greatly increased interest in the internal structure of nominal constituents around this time, in particular the early elaboration of the 'DP hypothesis' (Abney 1987; Fukui and Speas 1986; Szabolsci 1987), the most crucial factor being the presence of functional material within the nominal projection, whose projection(s) are seen to dominate NP proper, as well as the identification of the highest functional element as D (the site of determiners; in the earliest work, frequently the only posited functional head), two factors upon which Ritter's work explicitly and necessarily draws.

Furthermore, Ritter's work established a baseline towards which almost all subsequent treatments of the construct phenomenon in the generative literature are framed as responses, most often as dissensions, much more rarely as attempts to modernise or revise Ritter's basic trajectory of analysis.

Ritter's analysis of the construct phenomenon passed through two distinct stages, the first represented by Ritter (1987, 1988), the second in the substantially altered perspective of Ritter (1991). We will treat the major elements of these in turn.

2.1.1.1 Simple N-to-D raising and the DEF/POSS split: the early Ritterian analysis

Underlying Ritter's early approach to the syntax of Hebrew CSDPs is a certain view of the derivation of VSO order in clauses, which Ritter extends to the surface 'NSO' of the construct state nominal:

(18) a. [V+I S t_V O] (VSO)

b. [N+D $S_{[possessor\ DP]}$ t_N (O)] (NSO)

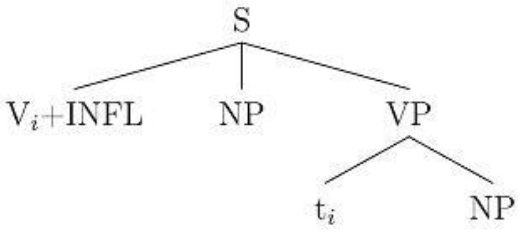
(based on Ritter 1987: 521)

A substantial preceding trend of work on VSO languages, mostly of the Celtic family, held that the order was base-generated, and that a verb phrase was not present (cf. e.g. McCloskey 1979; Stenson 1981). Thus, a flat, non-binary branching structure was taken to underlie VSO order in clauses; lacking, in particular, a hierarchical asymmetry between subject and object. Later general theoretical developments had naturally rendered this approach less than ideal, including particularly the drive towards maximising the coverage of binary-branching phrase structures (Kayne 1984); various empirical problems also inhered in representations which offered no means of encoding structural asymmetries between subject and object, most notably binding facts.

In contrast to this tradition of base-generation analyses, Ritter drew on the more recent suggestion of Sproat (1985)'s extended analysis of Welsh, to the effect that VSO order was derived transformationally via, as Ritter outlines the proposal, raising of the verb to INFL from its base position as the head of a VP constituent.[12]

In fact, Ritter omits to note that her characterisation of Sproat's analysis is somewhat inaccurate. Sproat proposes the following structure as an intermediate to his final proposal, essentially as part of a developing argument concerning the parsing of VSO structures in acquisition:

(19)



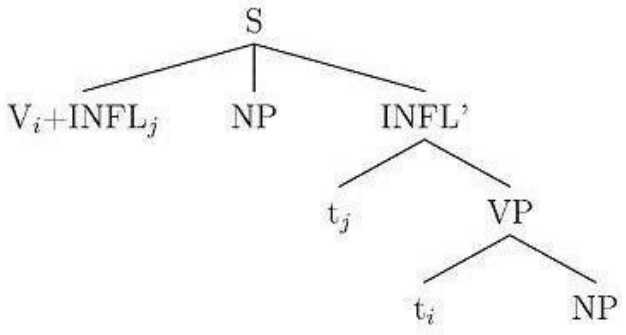
Sproat (1985: 215)

This is the structure upon which Ritter's initial work appears to draw, adapting it to take account of the reanalysis of S as the maximal projection of INFL. It will be

[12] An earlier proposal for a VP in Celtic VSO languages was made by McCloskey (1983), but Ritter draws directly only on the analysis of Sproat.

noted that in (19), as in Ritter's reformulated structures, INFL is base-generated before the subject, which is nonetheless external to VP. Ritter (1987) does not deal with this point; Ritter (1988) makes explicit reference to the emerging VP-Internal Subject Hypothesis (Johnson 1985; Kitagawa 1986), which is not a feature of Sproat's analysis as such. Sproat's final structure is as follows:

(20)



Sproat (1985: 215)

Ritter 'updated' an interpretation of(19) (19) as the starting point of her analysis of the construct-state phenomenon. As an aside we may consider what the relationship would be between Ritter's proposed parallel DP/IP structures for construct-state DPs in Hebrew and VSO (the latter based on her reformulated version of (19)), and Sproat's proposals for the derivation of VSO order when taken on a basis similar to (20) rather than (19). If we (probably unwisely) attempt a similar simplistic reformulation of Sproat's structure in (20) into a later framework for which it was not intended, corresponding more or less to that adopted by Ritter, we can see that the parallel with any minimally plausible reformulation of Sproat's basic structure does not work out so cleanly. In modern terms, it will clearly be seen that (20), if taken with the usual developmental equivalence of S to IP/TP (Chomsky 1986a), is incoherent: reformulated according to these precepts, INFL has moved into its own Specifier position. The structure also fails to obey the classical restrictions on the operation of head movement, most notably in targeting a non-head landing position. These difficulties disappear if we take Sproat's S in the particular structure schematised in (20) to correspond to the modern CP. It will thus be seen that Sproat's final proposal, viewed through a modern lens, is, if any comparison could be judged plausible, much closer to the basic theory of the derivation of VSO order proposed by, for example, Hale (1989) and Stowell (1989), in which C serves as the landing site of the moved INFL, siting the surface position of the subject in the standard sentential

subject position (Spec,IP), than to the presentation by Ritter of Sproat's intermediate position, which bears a strong resemblance to what would, in later terms, be a derivation of VSO order by V-to-I movement alone, leaving the subject in situ in what could then be regarded as its base VP-internal (or vP-internal) position.

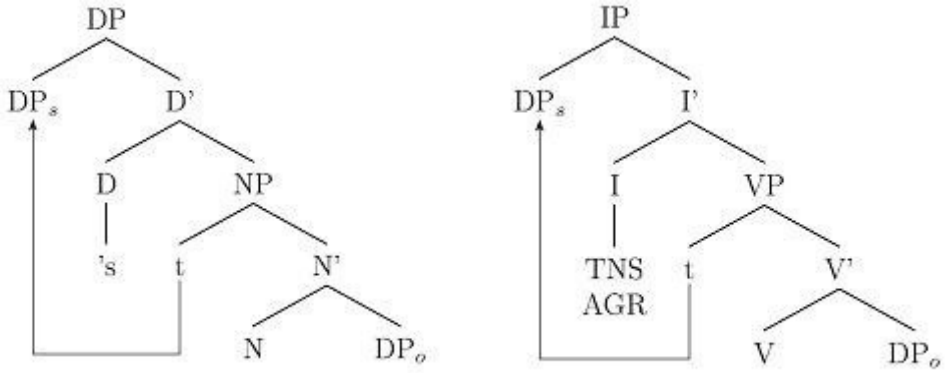
Ritter, unlike Sproat, explicitly adopts the CP innovation. Given these observations, the position of Ritter's early analysis is somewhat complicated relative to the theory of VSO order on which it rests. Nonetheless, the fundamental point upon which Ritter draws, the need for 'rightward' Case-assignment (triggering either, as in Sproat's version, movement of INFL over the then-standard sentential subject position, or, as in Ritter's approach when it explicitly takes note of the VP-Internal Subject Hypothesis, failing to trigger movement of the subject whilst necessitating movement of the verb to morphologically support an affixal INFL, the latter being already leftward of the subject in the base-generated structure), which underlies all other details of her proposals, is not internally inconsistent in its parallelisms. In addition, a version of Ritter's analysis which did fully align with a CP-like analysis, relying on two functional layers dominating VP in the clause and NP in the extended nominal projection, probably is possible, and indeed such a possibility is implicitly evoked, if not in a simple fashion, by the second stage of Ritter's work on the construct (for which see the following section).

Thus, to Ritter, construct DPs are underlyingly of SNO (subject-noun-object) order, with hierarchical asymmetry between subject (= possessor DP) and object in construct-state nominalisations parallelling in NP the asymmetries of VP or the clause; the overt ordering NSO is derived by movement of the noun, parallelling movement of V to INFL. The landing site of this movement is D, taken to parallel the clausal INFL (*pace* the theoretical issues noted above). Drawing on Sproat's view of Welsh INFL, Ritter posits that in Hebrew D, as well as its clausal parallel INFL's assignment of nominative Case, assigns genitive Case 'to the right', i.e. to the surface-postnominal genitive DP; in Ritter's version, this allows the subject to remain '*in situ*' beneath the Case-assigning functional head (leaving aside the slight issues surrounding this point in Ritter's specific formulation).

Ritter (1988) establishes a basic parallel between these VSO/NSO structures which, by reason of the morphological nature of T/D, force movement of the lexical head V/N to support it whilst leaving the subject/possessor *in situ*, and the structure for English nominalisations adopted by Fukui and Speas (1986), whereby English

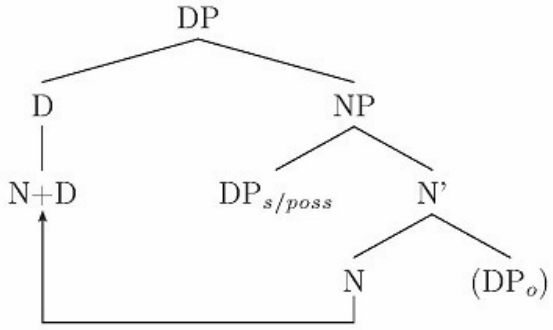
prenominal possessor DPs move over a specifically genitive-assigning D which, as with English I, must assign Case 'leftward':

(21)



By contrast, Hebrew I and D assign Case 'rightward', permitting the subject/possessor to remain *in situ*, in the DP instance necessitating movement of the noun to provide overt support to an otherwise covert feature in D. Thus a schematic outline of the basic structure of a CSDP according to this analysis is as follows.

(22)



It will be seen from (21) above that, in common with much contemporary work, INFL is assumed to contain two features, Tense and AGR, the latter involved in the processes of case assignment and agreement. Theories of this latter feature and its possible nominal parallels played a substantial role in the early elaboration of the DP hypothesis.

Together with Abney (1987) and others, Ritter assumes that D, as parallel to INFL, likewise hosts two major features: DEF(initeness), parallel to Tense, and an AGR feature responsible for genitive Case assignment. In Abney's work, for instance, DEF and AGR were mutually exclusive in the English D node, ruling out the coocurrence of the English *'s*-possessive and ordinary determiners such as articles

(though note that English *'s*, for Abney, was not itself, as in the representation in (21), a reflex of the case-assigning element in D; instead, *'s* was assumed to be the ultimate head of the possessor DP, as a special intermediary Case-assigning postposition; cf. Abney 1987: 79-85; this view, which was rarely adopted in subsequent work, in fact offers strong echoes of the issue surrounding the Hebrew object/accusative marker *et* in construct-state nominalisations); this was contrasted with languages such as Hungarian, which showed both lexical determiners in possessives and agreement of the possessum noun with its possessor in those structures.

Ritter's work thus belongs to an emerging cluster of proposals which takes the assignment of genitive Case (in at least some possessive-type structures) to be a structural Case in the nominal phrase parallelling nominative in the clause, as against prior work which merely stipulated its various realisations under the view that it was an inherent Case (cf. e.g. Chomsky 1986b).

Ritter (1987) terminologically reclasses the nominal AGR element as POSS(essive); Ritter (1988) refers to the same element as GEN(itive), though the difference of formulation is otherwise of little significance.

However, Ritter does not, as might be expected given the mutual exclusivity in Hebrew CSDPs of 'matrix' determiners and the construct-state possessive construction, argue for a parallel with Abney's position for English, that is, an exclusivity in Hebrew D between the DEF and POSS/GEN features. In fact (in contrast to some later citations of Ritter 1988 in particular), Ritter's early analysis does not set up an exclusivity of any kind between the possessive-related, Case-assigning element in D and the DEF element responsible for definiteness values and realised in the case of definites by the Hebrew definite article *ha-*.

Rather, Ritter argues that in CSDPs the matrix definiteness feature *is* realised, to the right of the construct-state noun, cliticising onto the possessor DP. The consequent lack of sequences of two adjacent definite articles (one belonging to the CS noun and the other to the possessor) is ruled out by an effectively arbitrarily stipulated filter (Ritter 1987: fn. 9).[13]

[13] Which, if maintained, may of course have some capacity for cross-linguistic unification as part of a repetition-avoidance mechanism, even perhaps one operating at the phonological level. Ritter did not pursue such an avenue, and as the clitic-lowering analysis seems implausible for other reasons (see immediately below), we do not examine this possibility any further here.

Ritter based this proposal on an observation by Shlonsky (1986) that *that*-trace effects seem to be absent in Hebrew complement clauses whose complementiser likewise has clitic-like qualities:

(23) *mi* *at* *ma'amina* *še-lo* *ohev* […]
who you believe that-NEG likes
"Who do you believe doesn't like [X]?"

Here, the trace of the *wh*-moved embedded subject should intervene between the complementiser *še* and the negation *lo*, ruling out the structure via the well-known *that*-trace effect:

(24) *Who$_i$ do you believe that t_i doesn't like [X]?

On the contrary, the clitic-like Hebrew complementiser is immune from *that*-trace effects here. Ritter, following Shlonsky, assumes that as a clitic *še* 'cliticises down' to the nearest overt element, thus leaving the complementiser-negation sequence in (23) unbroken by the (covert) trace.

Without entering into theoretical issues (either contemporary or more recent), it is enough to note some very strong initial empirical evidence against this view: possessor DPs which function as definites outside possessive structures without the presence of an overt article, for example many proper names, cannot take a prefixed definite article. Thus the surface form of a CS complex with a proper-name possessive DP is uniformly as in (25)a., not as in (25)b. as would be expected if Ritter's 'matrix article lowering' were upheld:

(25)a. N_{CS} PN
b. *N_{CS} ha-PN

Furthermore, although cliticisation over uninterrupted or trace-filled sequences (in the CS complex and the *that*-trace contexts respectively) has a certain contextual consistency, there seems to be no potential for an analysis of multiply embedded construct possessives along these lines; it is hardly plausible, regardless of other

assumptions, that the definite article in (26) has lowered over multiple intermediate construct-state nouns.[14]

(26) *roš* *ben* *xaver* *ha-mor-a*
head son friend DEF-teacher-F.SG
"the teacher's friend's son's head" (Ritter 1987: 523, slightly adapted)

It is thus crucial to note that in Ritter's earliest analysis, movement of N to D_0 does not result in the blocking of the realisation of the definite article; rather, in Ritter's view, the definite article *is* still realised, but as a 'lowered' clitic attaching to the possessor DP, which has no independent definiteness marking of its own. Certain issues remain unresolved here, most notably the fact that the filter which rules out sequences of the the matrix and possessor-related definite articles seemingly must also extend well beyond the traditional capabilities assigned in contemporary theoretical formulations to such filters, essentially wiping out the definiteness feature of the possessor altogether; otherwise, two independent definiteness values would still exist in the CSDP, leaving us with no explanation of syntactic 'definiteness spreading'. The issue of the construct-state form (suffixal variations, noun-stem alternations) is also left aside.[15]

Nominalisations in Hebrew may take accusative direct objects (though, as noted in the previous section, only if the marker *et* is present, and hence only if definite; the latter fact plays no role in Ritter's analysis). The subject/possessor may bind a reflexive object in such structures, but not *vice versa* implying a structural asymmetry between clausal subject and object:

[14] Although Ritter's proposal is not entirely clear on this point, it does appear that she incorporates lowering over *overt* material, citing the following type of structure in support (Ritter 1988: fn. 7, slightly adapted):

(i) *šney* *ha-yelad-im*
two DEF-child-M.PL
"the two children" (*"two of the children")

Ritter (1991) reanalyses these structures as CS possessives, the noun (and its associated article) forming an embedded genitive DP.

[15] An unstated possibility latent within Ritter's clitic-lowering analysis, but which could apply only in definite construct possessives, is that the linear sequence of CS noun plus definite article, as realisations of two respective features both in D_0, might naturally form a tight phonological unit. This cannot, however, be simply extended to indefinite CS possessives in Hebrew, lacking a definite article, nor of course to those languages in which articles are entirely absent.

(27) a. *ahav-at* *Dan* *et* *acmo*
love-FEM.SG.CSTR PN ACC himself
"Dan's love of himself"

b. **ahav-at* *acmo* *et* *Dan*
love-FEM.SG.CSTR himself ACC PN

Ritter (1987: 533, slightly adapted)

Given the assumption that the object DP is complement of N (as, again, parallel to V), this supports the placement of the construct possessor DP in a c-commanding position – Spec,NP in Ritter's formulation.

It is notable that an *et*-marked object may *only* be present if a subject/possessor DP is also present, which Ritter takes to be an instance of an effect in the DP context of the mechanism underlying Burzio's Generalisation (according to which an object may receive Case only if a thematic subject is present). The *et*-object may not surface in the absence of a construct possessor DP (regardless of the 'state' of the head):

(28)a. *kabal-at* *ha-lakoax* *et* *ha-mexir*
acceptance-FEM.SG.CSTR DEF-customer ACC DEF-price
"The customer's acceptance of the price."

b. **kabal-at* *et* *ha-mexir*
acceptance-FEM.SG.CSTR ACC DEF-price

c. **kabal-a* *et* *ha-mexir*
acceptance-FEM.SG

d. **ha-kabal-a* *et* *ha-mexir*
DEF-acceptance-FEM.SG

(Ritter 1987: 532, presentation adapted)

Where no subject is present, a default-state nominalisation with an object marked by *šel*, rather than *et*, is on the contrary possible; similarly, a construct possessor, implicitly genitive- rather than accusative-Cased, may express a patient/theme-like argument in the absence of a subject:

(29)a. *(ha-)kabal-a* *šel* *ha-mexir*
(DEF-)acceptance-FEM.SG of DEF-price
"(The) acceptance of the price." (Ritter 1987: 533, slightly adapted)

b. *haris-at* *ha-'ir*
destruction-FEM.SG.CSTR DEF-city
"The destruction of the city."

(Siloni 1996: 257)

This Ritter takes as evidence that *et* and *šel* are of differing syntactic status; the latter is a (true) preposition, present 'at all levels of representation'; the former a reflex of Case-assignment by N (either case-marking as such, or a late-inserted supporting surface case-assigner, analogously to some analyses of English *of* marking objects in nominalisations, *pace* the definiteness restriction on *et*).

To Ritter (1987), in non-construct possessives the projection of the preposition-like element *šel* is an adjunct to the maximal projection of N, whereas to Ritter (1988) it is an adjunct to DP. The reformulation, whose reasoning is not made explicit, does not appear to have any significance to other aspects of Ritter's analysis. In both cases Ritter utilises the adjunct status of possessor DPs with *šel* to explain why *šel*-possessors cannot bind in structures such as the following:

(30) a. *tmun-at* *ha-yalda* *šel* *ha-mor-a*
picture-FEM.SG.CSTR DEF-girl of DEF-teacher-FEM.SG
"the teacher's picture of the girl" (where = 'depicting the girl')

b. **tmun-at* *acma* *šel* *ha-mor-a*
herself

There is naturally no possibility of construct-state analogues of (30)a. along the lines of transitive construct nominalisations, according to Ritter, as *ha-yalda* must occupy both the complement of N (where it receives its θ-role), and the Spec,NP position of a construct possessor DP (where it receives Case; this is implicitly also the treatment of examples such as (29)b.). It would fail to receive Case if it could not move to Spec,NP, ruling out structures in which a construct-state possessor interpreted similarly to the *šel*-phrase could bind an unmoved reflexive *in situ*.[16]

2.1.1.2 Determiner exclusivity: Ritter's revised analysis

Ritter (1991), whilst drawing heavily on Ritter's existing proposals, advances a sufficiently altered formalisation that it may be classified as a distinct analysis.

Perhaps the most significant alteration is with regard to the nature of the Determiner head, and thus the formalisation of its interaction with movement of the

[16] The situation here is not entirely unambiguous; there appears to be variation between speakers as to whether an option is available where the construct possessor is interpreted as a possessor (in the narrow sense) and a *šel*-phrase following is interpreted as the theme argument of *tmunat*. Ritter takes this to indicate a dialectal variation in the "rule of *šel*-insertion", perhaps implying that for some speakers *šel* is not only capable of realising adjoined PP-like possessors, but also of acting as an 'inserted' case-assigner to the complement of N, analogously to various contemporary analyses of certain English postnominal *of*-possessives.

head noun, amongst other matters. As with Ritter (1987, 1988), a parallel between INFL and D based on rightward Case-assignment in VSO and NSO structures is maintained. However, whereas Ritter's earlier work had assumed that D uniformly hosted features which were not mutually exclusive, and which could coexist and in some cases receive separate overt manifestations, Ritter (1991) moves towards an analysis based on exclusivities between lexical fillers of D. In this she explicitly evokes the broad tenor of Abney (1987)'s proposals regarding English D, whereby (in a particular grammar) the DEF feature is mutually exclusive in D with the AGR feature associated with Case-assignment in possessives. Ritter, however, more explicitly links this exclusivity to *lexical* determiners (rather than a language-particular bar on feature cooccurrence which may in an alternative grammar coexist), although the difference is virtually notational when viewed in narrow terms.

Thus for Ritter (1991), Case in construct possessives is assigned by a special determiner head, which she terms D_{gen}. Movement of N to D serves to provide an overt support/identification to this element, as with the (narrower) POSS/GEN feature of the earlier analysis. Ritter thus abandons the view that the definite article which may attach to the construct possessor DP is (in most cases) a reflex of the matrix Determiner head's definiteness feature; it is now viewed as uniformly the realisation of the definiteness specification of the (most embedded) possessor. Ritter assumes that definiteness inheritance proceeds via a mechanism of Spec-Head agreement for definiteness between N and the possessor phrase in its Specifier,[17] subsequently 'percolated' to the appropriate projection via movement of N to D.

Ritter's attitude to the phonological and morphological alternations of the construct-state noun forms is here explicitly discussed, but is still rather ambiguously treated. In one instance, the alternations are put down to the formation by the CS complex of a phonological word, the existence of this exceptional domain thus triggering purely phonological and morphological "rules" (Ritter 1987: fn. 2), whereas elsewhere it is assumed that the altered forms are not (or not only) driven by the (structure of the) phonological environment, but also serve to render explicit the presence of the special determiner (i.e. the CS form is somehow a realisation of both the noun and the seemingly covert D_{gen}; Ritter 1991: 40).

[17] Later reformulated as the Specifier of Num; see below.

Ritter (1991) also takes account of facts surrounding nominalisations which Ritter's earlier treatments had not taken into account; specifically, examples such as (31), which demonstrate that the basic binding properties between possessor and object in a nominalisation with the apparent structure of a *šel* possessive are the same as those for construct-type nominalisations (cf. (27) above), i.e. there must likewise be an appropriate structural asymmetry in the *šel* case:

(31) a. *ha-ahav-a* *šel* *Dan* *et* *asmo*
DEF-love-FEM.SG of PN ACC himself
"Dan's love of himself."
b. **ha-ahav-a* *šel* *acmo* *et* *Dan*
(Ritter 1991: 43)

This leads to a dilemma for a head-raising analysis of construct-possessive word order in which the sole category dominating NP in the extended nominal projection is DP. If, as in Ritter's second analysis, the genitive-assigning determiner of construct possessives drives movement of N for morphological reasons, and the barring of determiners in construct possessives is a result of the presence of this special lexical determiner as opposed to that which is spelt out by the definite article, the *presence* of determiners with the head noun of non-construct nominalisations with *šel*-marked subjects is problematic. In order to claim, within the parameters of X'-theory, that a hierarchical asymmetry exists within NP between subject and object, the noun must have raised from its base position even in examples such as (31). Given Ritter's other assumptions (in either the earlier or the later analysis) the landing site of this movement cannot be D. Thus, Ritter assumes there must exist an additional head position intermediate between N and D. The head noun of *šel* nominalisations thus moves to the intermediate position, but not (as in construct possessives and nominalisations) subsequently to D, which is instead filled by the element which provides a definiteness specification, and may spell out as the article.

(32) *ha-axila* *šel* *Dan* *et* *ha-tapuax*
DEF-eating-FEM.SG of PN ACC DEF-apple
"Dan's eating of the apple."

(33) [$_{DP}$ *ha* [$_{NumP}$ *axila* [$_{NP}$ [*šel Dan*] [$_{N'}$ t_{axila} *et ha-tapuax*]]]]
(Ritter 1991: 43, adapted)

Because of these facts concerning nominalisations, Ritter (1991) takes *šel* possessives, as arguments in nominalisations, to have in fact a similar D-structure representation to construct possessives; that is, *šel*-phrases are not adjuncts uniformly (outside the object case admitted by Ritter 1987, 1988), but may occupy the same structural position in NP as construct possessors.

That there are nonetheless structural differences between the two types is seen to be suggested by differential surface adjective positions in construct-state versus *šel* nominalisations (though in the construct case it must be noted that even the 'valid' order is marginal in nominalisations):

(34) a. *ha-axil-a* *ha-menumeset* *šel* *Dan* *et* *ha-uga*
DEF-eating-FEM.SG DEF-polite of PN ACC DEF-cake
"Dan's polite eating of the cake".

b. **ha-axil-a* *šel Dan* *ha-menumeset* *et* *ha-uga*

c. ?*axil-at* *Dan* *ha-menumeset* *et* *ha-uga*
eating-FEM.SG.CSTR PN DEF-polite ACC DEF-cake

d. **axil-at* *(ha-)menumeset* *Dan* *et* *ha-uga*

e. **axil-at* *Dan* *et* *ha-uga* *ha-menumeset*

(adapted from Ritter 1991: 44-5)

For Ritter, these facts fall out simply from differentiated movements in the two cases. Adjectives are assumed to be left-adjoined to the maximal projection of NP. In CSDPs, N moves through Num to D (to support D_{gen}) and the subject, generated in Spec,NP, moves to Spec,NumP to receive Case (from D_{gen}). In the *šel* cases, however, Case is assigned by *šel* itself, with the consequence that the subject remains *in situ*. The head N moves to Num, but not to D (which is independently filled):

(35) a. $[_{DP}$ *axila*+Num+D_{gen} $[_{NumP}$ *Dan* $[_{Num'}$ $t_{axila+Num}$ $[_{NP}$ $[_{AP}$ *ha-menumeset*] $[_{NP}$ t_{Dan} $[_{N'}$ t_{axila} $[_{DP}$ *et ha-uga*]]]]]]] (= (34)c.)

b. $[_{DP}$ *ha* $[_{NumP}$ *axila*+Num $[_{NP}$ $[_{AP}$ *ha-menumeset*] $[_{NP}$ [*šel Dan*] $[_{N'}$ t_{axila} $[_{DP}$ *et ha-uga*]]]]]] (= (34)a.)

(adapted from Ritter 1991: 45-6)

Ritter extends the D>Num>N analysis of the nominalisation facts to propose a uniform structure in which case construct possessors (in the narrow sense) are always sited in Spec,NumP, again a necessity for assignment of Case (from the special determiner D_{gen}); that is, only thematic arguments of N are base-generated internal to NP, whereas possessors are external to it. On the contrary, *šel*-possessors outside

nominalisations are still treated as DP-adjuncts; this non-unification is principally supported, in Ritter's view, by examples such as (30)a, where a *šel*-possessor appears outside a theme argument of N (in these cases surfacing as a construct possessor), in contrast, given certain assumptions, to the likes of (34)a.

Ritter assumes that the construct determiner and *šel*-possessors are not in fact mutually exclusive (thus, in some sense, that construct- and prepositional possessives are not entirely separate categories), on the basis of the availability in Hebrew of clitic-doubling structures as illustrated in (36). Here possessive pronouns, which attach to a somewhat construct-like noun, double a *šel*-possessor, whether in a strict possessive or a nominalisation:

(36)a. *beyt-o* *šel* *Dan*
house.'CSTR'-his of PN
"Dan's house".

b. *axil-at-o* *ha-menumeset* *šel* *Dan* *et* *ha-uga*
eating-FEM.SG.'CSTR'-his DEF-polite of PN ACC DEF-cake
"Dan's polite eating of the cake."

(Ritter 1991: 48-9, slightly adapted)

Ritter assumes that this structure results from the simultaneous occurrence of D_{gen} (which must assign Case in a construct-like configuration, necessitating the vacuous pronoun) and a *šel*-possessor independently assigning genitive Case. We leave aside here the particulars of Ritter's treatment of pronominal possessors. It must be noted, however, that the availability of this doubling construction is far from general across Semitic languages. Whilst most of the other elements of Ritter's analyses are in principle extensible, with greater or lesser adaptation, to the broad facts of construct possessives across Semitic, her failure to explain their inability to cooccur in some languages (on the assumption that in the variety of Hebrew under description, given the doubling construction, their cooccurrence is in fact possible) leaves a gap in their potential coverage.

2.1.2 Generalised N-to-D Movement

The classical head movement analysis pioneered by Ritter, and adopted with various relatively minor modifications elsewhere, is founded on the following basic proposal: in construct-state structures, N raises to D. In non-construct structures, this movement does not take place (although N in non-construct structures may be assumed to

undergo other movements, as with Ritter 1991, who assumes that N always moves to Num).

Siloni (1996) rejects the use of an intermediate functional category as differentiator between construct and non-construct properties in examples such as (27) and (31) respectively (though admitting its potential analytical efficacy for the word-order facts), instead developing a line of analysis based on generalised raising of the noun to D in all instances, irrespective of the 'state' of the noun or the presence/absence of nominal arguments.

The basic word order facts with regard to arguments/possessors and adjectives in this alternative account fall out as follows: subjects and possessors are generated in Spec,NP; as for Ritter (1991), adjectives are uniformly left-adjoined to the maximal projection of NP. Thus while for Ritter the intermediate projection Num provided a means of deriving the correct adjective ordering in all cases (via generalised movement of N to Num), for Siloni the order facts can only be derived via movement of N to D throughout all Hebrew DPs. There remains, however, the problem of adjective ordering in construct possessives, where we would expect the following:

(37) *$[_{DP}\ N_i$+D $[_{NP}$ Adj $[_{NP}\ DP_{possessor}\ [_{N'}\ t_i\ ]\ ]\ ]\ ]$

In fact, as we have seen, adjectives uniformly and obligatorily follow possessor DPs in construct possessives.

In construct state possessives, Siloni proposes, following Abney (1987)'s exact formulation more closely than did Ritter, that D hosts an abstract Agr element to which N 'incorporates'; as before, for morphological reasons. This element assigns genitive Case to the specifier of its complement (NP). For Siloni, it is the adjacency requirement imposed by this operation of Case-assignment that forces reordering as a secondary repair strategy.[18]

Articles are ruled out for construct-state heads by extending Abney's approach (that Agr in D is mutually exclusive with overt or lexical determiners in some, but not all, languages). Conversely, Case thus cannot be assigned to possessors by Agr where the article is present, necessitating the insertion of *šel* (for Siloni throughout an extraordinary Case-assigner, not a true preposition, in contrast to Ritter's split

[18] For Siloni (1996) it is not entirely clear whether this is intended as a repair by movement, or an alternative base-generated structure. Siloni (1997: 180) explicitly specifies movement, of the DP originating in Spec,NP to adjoin to the maximal projection of NP.

analysis). However, non-construct nouns also move to D; in this case, not to support Agr but to incorporate to the affixal definite article. The article is thus analysed as a true prefix rather than a clitic; there is no exclusivity, as in Ritter's later analysis, between the article and a moved noun in D.

A substantial part of Siloni's work is devoted to arguing that nominalisations do not include a category VP nominalised syntactically (on evidence including the availability of objects only when *et*-marked, hence only when definite; unavailability of true, non-PP adverbials; restriction to accusative-dative word order in ditransitives, whilst dative-accusative is also available in VP). In this context, she challenges, given certain assumptions, the validity of Ritter's appeal to Burzio's Generalisation in the matter of the restriction of *et*-marked accusative objects in DP to transitive nominalisations (cf. 2.1.1.1 above).

On the assumption of a version of binding theory which makes explicit reference to the presence of a structural subject in defining the binding domain, Siloni argues that the following examples necessitate the postulation of a covert subject in single-argument nominalisations in which the 'genitive' DP expresses a patient argument. Anaphors may be bound from outside the CSDP where the (implicit) Agent is coreferential with the binder and the anaphor, as shown by (38)a. However, where this is not the case (i.e. where an implicit Agent is clearly not identical with binder and anaphor), only a free pronoun (as genitive) may surface; bound anaphors are barred:

(38)a. *hu*$_i$ *nimna* *me-'ahav-at* *'acmo*$_i$
he avoided from-love.FEM.SG.CSTR himself
"He avoided loving himself".
(Siloni 1996: 264 fn. 20, slightly adapted)

b. *hu*$_i$ *nifga* *me-horad-at-o*$_i$ *be-darga*
hu$_i$ was_offended from-lowering-FEM.SG.CSTR-his in-rank
"He was offended by his demotion".

c. **hu*$_i$ *nifga* *me-horad-at* *acmo*$_i$ *be-darga*
he was_offended from-lowering-FEM.SG.CSTR himself in-rank
(Siloni 1996: 258, slightly adapted)

On these assumptions, therefore, a subject as empty category must be present in cases such as (38)b. Siloni does not formalise the consequences of this development, however; in particular, it is far from clear how, if NP subjects/possessors are generated in Spec,NP, and are assigned genitive Case in that position, the patient/theme argument receives genitive Case in the presence of a covert

subject (whereas under Ritter's assumption of the absence of a structural subject in similar instances, this fact receives an account without any particular complication). Furthermore, without further explanation, we now require a stipulation that in DP the presence of an accusative argument requires the presence of a *phonetically overt* subject (Siloni 1996: 258).

2.1.2.2 Generalised checking

Siloni (1997) essentially reinterprets the proposals of Siloni (1996) in light of the checking-based theory of movement and agreement of Chomsky (1993). Although much of the analysis is essentially shared, the reformulation gives rise to some striking differences.

Recall that in the lexicalist model of Chomsky (1993), lexical items are inserted in their base positions already bearing all features which, in other theoretical models, they would acquire or value in the course of a derivation. Movement is driven by the need of functional heads to 'check' (rather than provide or value) various features; agreement is essentially valid checking rather than a process in its own right.

Thus, once Siloni's earlier analysis is transmuted into the frame of checking, the function of D is not to host the definiteness feature inherently, but to check the definiteness feature of N. After arguing, on the basis that construct-state nominalisations may assign genitive case to the subjects of small clauses, whereas *šel* may not, that N in CSDPs, but not elsewhere, assigns structural genitive Case (as opposed to *šel*'s inherent genitive Case) Siloni must also admit an intermediate case-checking projection (present only in CSDPs), $Agr(_{gen})P$.

Both the head noun (to check its 'Agr feature' – in the non-checking formulation, hosted by D) and the construct possessor DP (to check its Case) must raise in CSDPs, to the head and the specifier position of the Agr-projection respectively. N further moves to D. It remains unclear how, in the presence of an Agr projection, movement to D can be motivated outside stipulations required by the checking theory and the word-order facts (recall that a Case-assigning element in D cannot now be appealed to, as Case is checked by an independent functional Agr element). Siloni (1996) explicitly rejected the split definiteness/Agr-like analysis of DP structure schematised by Szabolsci (1987, 1989) on precisely these grounds; the checking-based reformulation does not appear to deal explicitly with this difficulty.

Thus Abney's incompatibility between DEF and AGR features in D is reformulated via the (in some senses notational) variant of an exclusivity between similar features associated with N (and merely checked by the superordinate functional heads). An undesirable feature, though, arises here: the various head-raising analyses of construct and other Semitic DPs share a difficulty with definiteness inheritance, in that there must be an exclusivity between matrix definiteness and matrix (structural) genitive Case assignment, yet the maximal DP must somehow inherit definiteness features from a possessor DP. In the various analyses, N receives a definiteness specification from the possessor DP in a Spec-Head agreement configuration (variously in NP, NumP, or $Agr_{gen}P$ in the formulations so far considered). In Ritter's and Siloni (1996)'s proposals, this definiteness feature is then communicated to D by movement of N; though the exact mechanism is not formalised, this implies what might be called 'smuggling' into (Agr-containing) D via raised N of a feature which Agr-containing D cannot natively host. However, once the exclusivity between DEF and AGR is thrown onto N, as in Siloni (1997), it becomes quite unclear, especially in light of the assumptions of the checking theory, how the exclusivity can be formalised such that it can be broken by agreement in a moved position.

2.1.3 Structural Reduction of the Possessor

Borer (1996, 1999) proposes an analysis of the construct which in some ways strongly resembles prior proposals, especially those of Siloni, but is nonetheless strongly idiosyncratic in its fundamentals. Much of Borer's discussion concerns theoretical disputes over the fine properties of nominalisations (in Hebrew *šel*/non-construct possessives as well as CSDPs); these, she concludes, indicate the embedding of VP inside DP in process-nominal CSDPs, but not others. As this has very little relevance to our subsequent discussion, we will not review it in detail here.

Borer's account of the construct possessive is interesting for our purposes in that it proposes that the CS complex is formed by incorporation, and that incorporation "is a form of licensing a non-maximal Ex[tended]P[rojection]" (Borer 1996: 47). This is, basically, a rough variant of exactly what we proposed in a very different context for CHRCs in the previous chapter. Despite this intriguing similarity, however, there is no intrinsic mechanism here for differentiating between the behaviour of construct possessives and CHRCs. Borer does suggest one interesting

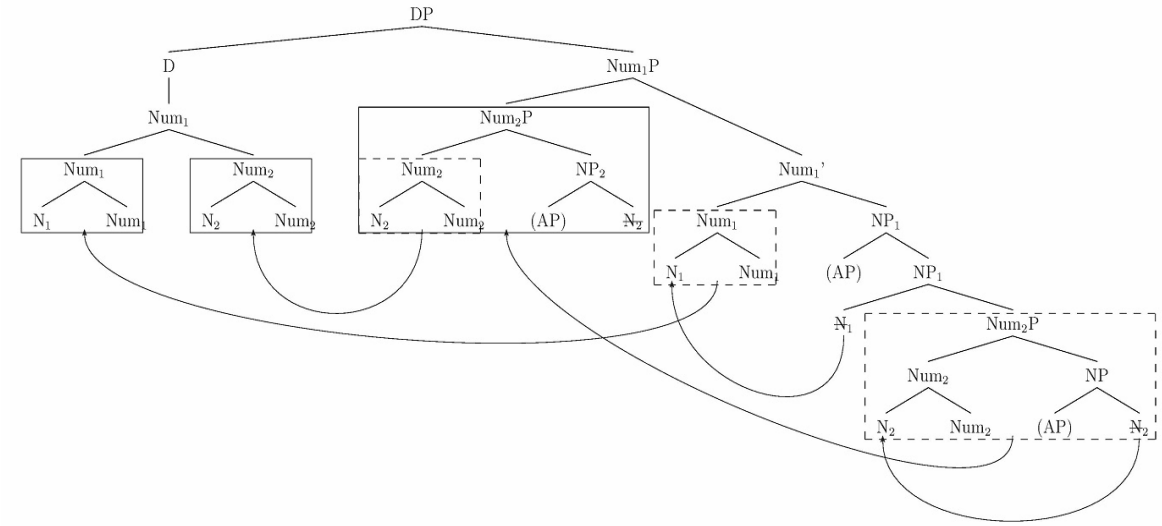
differentiation: Borer's typology of Ex[tended]P[rojections] recognises three types: fully articulated ExPs in which all functional heads associated with a given ExP are present; those in which some functional material, but *not* the maximal functional head of the ExP, is present; finally, those in which only the unique lexical head of the ExP is present. Borer proposes that incorporation-licensing by a functional head is potentially available to ExPs of the latter two types (without explaining what instances of the middle, 'semi-reduced' ExP incorporating in this sense would look like), but never of the first. By contrast, incorporation-licensing by a lexical head is available only to another minimal lexical head. Following ch. 3, it will become obvious that this schema has interesting commonalities with the three-level distinction in morphosyntactic 'reduction' exemplified by conventional construct state structures, CHRCs, and statives. Yet what is peculiar in Borer's analysis is that incorporation in constructs is, for her, principally *of the possessor*, not – the far more conventional potential option – the other way around. Thus the *possessor* is for Borer a semi-reduced ExP (Borer assumes NumP), while the head occupies a conventional extended projection and is moved to D in a somewhat more conventional sense.

In defending this proposal, Borer takes to a new extreme the 'smuggling' theory of CSDP's definiteness features being communicated to D from N: this is *universal* in "Semitic" DPs, not a peculiarity of CSDPs. D in Semitic is always natively unspecified for +/-definite, inheriting this specification only from (generalised) N-to-D movement.

In an innovative development of the 'definiteness smuggling' trend in N-to-D analyses of constructs, Borer assumes that when the head N is generated without a definiteness specification, a construct state possessive structure results because *only* the secondary provision of a definiteness feature to the matrix D will result in a valid structure. Thus, as for other analyses, the possessor provides the definiteness specification. In more conventional analyses like those of Ritter and Siloni, this occurs in a Spec-Head agreement configuration inside some projection beneath D. For Borer, however, it occurs because both possessum and possessor heads end up *as* the matrix D, inside a highly complex incorporational structure whose exact derivational process is not made entirely clear (the implication of Borer (1999: 77-8) in particular is that the possessor incorporates into a highly complex D head already containing the moved N+Num which constitutes the CS possessum noun).

This allows D to satisfy its need for a definiteness specification, and also allows a 'pervasive sharing' of definiteness features amongst the layers of this structure (cf. Borer 1996: 56), deriving definiteness spreading. The final structure is summarised in (39); the elements labelled 1 are those of the matrix nominal projection, those labelled 2 belong to the possessor, following Borer's notation (Borer 1999: 77-8):

(39)



Though the intuitions that underlie this analysis are highly interesting, the complexities involved, especially those concerning the nature of the movements involved in deriving the final structure of the CS complex (a hypercomplex head formed by multiple independent head movements of two different types, substitutional and adjunction-incorporational, into the same head) are perhaps rather too great for this to constitute a substantial advance on the reach and elegance of prior analyses. Furthermore, the utilisation of the otherwise interesting typology of incorporation of incomplete extended projections which Borer proposes to develop an analysis of the construct phenomenon which treats this incorporation, and reduction, as a feature of the possessor phrase seems to fundamentally obscure the central facts of the apparent structural reduction of the construct-state head noun, which (especially, as we will see later, once Akkadian is taken into account) have to be seen as a crucial feature of the construct phenomenon which is not reducible to the special properties of definiteness, or D, in Semitic languages.

2.1.4 Beyond (Traditional) Head Movement

Over the past decade much of the significant discussion of the construct and related matters has focused on theoretically driven issues regarding the status of head movement as a syntactic operation. Chomsky (2000, 2001) influentially cast doubt on the status of head movement in a Minimalist (and operationally minimised) syntax: specifically, Chomsky's Extension Condition on the operation Merge required that all instances of Merge target the root node of the derivation in progress, a requirement clearly violated by the movement of a zero-level node to adjoin to another zero-level node (rather than its projection). A substantial literature subsequently developed on this question (cf., inter alia, Boeckx and Stjepanović 2001; Brody 2000; Parrott 2001; Harley 2004; Fanselow 2004; Hankamer and Mikkelsen 2005; Matushansky 2006; Lechner 2007; Roberts 2010). Broadly speaking, approaches to the reformulation of head movement have fallen into three broad categories: those which dismiss the operation entirely and recast all relevant facts in terms of phrasal movement or other devices; those which adjust the definition of the operation to take account of the theoretical pressures imposed by the Extension Condition; and those which admit some form of head movement (whether or not so altered in character), but in a reduced subset of its previous explanatory breadth.

Here we examine two representative proposals, taking the first and second options respectively vis-à-vis head movement analyses of Semitic DP structure.

2.1.4.1 Shlonsky (2004): phrasal movement

Shlonsky (2004) develops the most prominent and most detailed attempt to reformulate theories of Semitic DP structure in the complete absence of the operation of head movement. The relevant theoretical details in the broadest sense are as follows: all movements are phrasal; movement targets projections containing the lexical head of the extended projection (cf. the similar system of DP-internal movement of Cinque 2005); following movement of XP to Spec,YP, further movements may either displace XP to Spec,ZP (where ZP>YP>XP), or may target YP as a whole, resulting in massive successive pied-piping. Cinque notably used this device to account for the postnominal portion of Greenberg's Universal 20 (N Dem Num A or N A Num Dem, other orders generally speaking barred); for Shlonsky, adjective ordering in Semitic DPs is produced via the total pied-piping option, for

example. Much of Shlonsky's argument is concerned with deriving facts of ordering amongst modifiers of N across Hebrew and multiple varieties of Arabic, details of which we leave aside for purposes of this summary.[19]

From this theoretical basis, Shlonsky derives an alternative account for the facts partially noted by Ritter (1987, 1988) concerning theme arguments of non-nominalisation CS nouns, which Ritter took to be an instance of Burzio's Generalisation (however explained), necessitating movement of the genitive DP from the complement position of N to its specifier for Case reasons, thus blocking assignment of accusative Case in the absence of a subject:

(40) a. *tmun-at* *ha-yalda*
picture-FEM.SG.CSTR DEF-girl
"The picture of the girl".

b. $[_{DP}$ tmunat$_i$+D$_{POSS}$ $[_{NP}$ ha-yalda$_j$ $[_{N'}$ t$_i$ t$_j$]]]
(Ritter 1987: 530-1, slightly adapted)

Shlonsky notes, however, that not only *et*-marking, but also *šel*-marking of the theme argument is invalid in the construct-state structure.[20] Here, the theme argument if present must be the genitive DP. It is impossible to realise an agent or possessor as a genitive DP if the theme is present as a prepositional complement:

(41) a. *tmun-at* *ha-xamany-ot* *šel* *vangox*
picture- FEM.SG.CSTR DEF-sunflower-FEM.PL of Van_Gogh
"Van Gogh's picture of the sunflowers".

b. **tmun-at* *vangox* *šel* *ha-xamany-ot*
(Shlonsky 2004: 1504, slightly adapted)

Assuming that such arguments are merged as complements of N, and assuming that NP (not N_0) is the moved constituent, N and the theme-argument DP will never be structurally separated by any movement operation. Shlonsky makes a further assumption which is non-standard: a single DP in a genitival relation to a simple noun is merged, regardless of its thematic relation to N, as complement of N

[19] For Shlonsky (2004: 1490-1), movement (successive through specifier projections of c-commanding heads for independent reasons) is driven by the need for licensing needs of N to be satisfied by features of some higher functonal projection under a government-like local c-command relation. Once this relation is satisfied, further movement is precluded. For Shlonsky this mechanism is genitive Case assignment/licensing, which is found in some cardinal numeral structures as well as possessives per se, except in the case of determiners, where definiteness is the relevant feature.

[20] Ritter and others report the existence of a dialect of Hebrew in which this is not the case. It is, however, certainly the case that these facts hold in some grammars.

(although there appears to be an unstated preference for initial merge of N with a theme argument where present). Thus only in nominalisations does the underlying configuration of arguments relative to N parallel that of clauses; with simple nouns, the thematic relation is undetermined by structure and receives interpretation according to context. Shlonsky takes this to explain the ambiguities of an example such as (40)a., where not only a theme but also possessor- or agent-like interpretations are available.

Thus Shlonsky's analysis is novel in deriving virtually all facts of the Semitic DP (at least partially) through the mechanism of phrasal movement, *except* the formation of the construct complex, which involves no movement at all (except of the construct complex as a whole without internal reconfiguration).

This leaves us with issues surrounding the CS form in the construct complex and the assignment of genitive Case. These are dealt with, again, in a rather novel way. The construct-state noun, merged with its complement as a DM-style root, is categorised by a functional categorial head, the complex as a whole forming a word-level constituent. In the case of the construct, however, this word-level constituent will *include* the possessor DP as an argument of the root itself, merged with the root prior to categorisation. For Shlonsky, it is the categorising head which (like other non-verbal functional heads except D) assigns genitive Case, in a configuration which would presumably have roughly the following form:

(42) $[_{nP}\ n\ [_{Root}\ R\ _{DP}[\ \ldots\ ]\ ]$

Thus for Shlonsky, the entire lexical material of the syntactic 'word' formed by the CS complex bears genitive Case, not only the possessor DP. This does require, however, the rather *ad hoc* assumption that the discharging of genitive Case is an optional feature of the categorising head peculiar to construct-state cases. This relatively unelaborated proposal does have one interesting property, to which we shall return, namely that it predicts that the matrix N (as N) will not be able to inherit a case specification from the wider matrix nominal projection; but this wider projection may still include appropriate matrix case feature, driving case-marking of matrix modifiers. Though there are many difficulties with this proposal in practice, this property will be of interest when we return to the facts of the Akkadian CS complex.

For Shlonsky, there is still a differential movement (of nP/NP) in CSDPs versus non-CS structures. In CSDPs, NP must move to Spec,D; a fact in his view supported by the unavailability in Standard Arabic of prenominal demonstratives only with CS complexes, and the unacceptability of prenominal numerals in Hebrew in only the same context. The determiner exclusivity of CSDPs is explained as an instance of a Doubly Filled Comp Filter-like restriction on simultaneous overt filling of D and its Spec.[21] This also results - for Shlonsky, obligatorily in this type of configuration - in Spec-Head agreement, ruling out differential definiteness values and thus providing a mechanism for a recast notion of inheritance.[22]

2.1.4.2 Bardeas (2008): head movement reborn

Bardeas (2008) essentially undertakes on theoretical grounds a reformulation of existing head movement analyses. The underlying schema of the relevant DP structures assumed by Bardeas draws on elements of both Ritter (1991) and Siloni (1996); from the former, the notion of exclusivity of lexical fillers of D, from the latter the notion of generalised head-movement, as well as a DP-over-NP structure lacking the intermediate projection used by Ritter (1991) to account for adjective ordering, amongst other facts. To escape the difficulties of a single-projection analysis with adjectives sited, as in most previous proposals, as left-adjoined to the maximal projection of NP, Bardeas assumes instead right-adjunction to NP.[23]

In line with various proposals under Merge-based structure building which 'denature' previously typologically distinct positions of X'-theory, that is, which nullify the formal status of distinctions such as minimal-maximal and head-specifier, Bardeas follows Matushansky (2006) in formulating an approach which permits head

[21] This requires, amongst other considerations, that demonstratives are hosted by a separate projection, and are not themselves fillers of D or Spec,DP (cf. Shlonsky 2004: 1497-8).
[22] Although this explains agreement in definiteness between the CS complex and the covert D head which for Shlonsky follows it, the problem remains of how definiteness agreement occurs based on the definiteness value of the rather deeply embedded possessor DP. Extending the intuition of Bardeas (2008, cf. sect. 2.1.4.2 below) that definiteness agreement and assignment of genitive Case occur in a single reciprocal operation in the CS complex to a quite different context, Shlonsky's assumption that the transmission of definiteness features from the CS possessor DP embedded in nP/NP to the entire nP/NP projection is some form of 'percolation' (analogous to a pied-piped PP in wh-movement fulfilling the requirements of wh-movement despite not being a wh-item itself) may perhaps be linked instead to properties of the idiosyncratic genitive-assigning categorial head of Shlonsky's proposal.
[23] As Bardeas expliticly acknowledges, this will necessarily fail to account for data such as (34) on the positioning of adjectives in Hebrew nominalisations, unless the Hebrew *et* is not a reflex of structural Case but an adjoined preposition. Though the issue is far from straightforward, there is substantial initial evidence in favour of the former interpretation, which Bardeas leaves unnoticed.

movement, instead of functioning as an operation forming a complex head in the first instance, to target (in syntax) the root node of the derivation. Effectively, in earlier terms, the landing site of head movement is not a like position (i.e. X_0 to X_0, in X' terms) but the equivalent of an X'-theoretic specifier position, i.e. (non-projecting) sister of (what was previously regarded as) an X' node.

(43) a. *bait* *al-walad*
house.CSTR DEF-boy
b. [$_{Dmax}$ *bait* D_{min} [$_{Nmax}$ [*al-walad*] ~~*bait*~~]]
(modern Arabic; Bardeas 2008: 9, adapted)

Following proposals of Matushansky (2006), Bardeas assumes that the driver for generalised head-movement in Arabic DPs is the combined effect of two features shared by all of the lexical determiners of the language: a selectional feature which specifies that N shall be the head of D's complement, and a linked movement-driving feature whose checking requirement forces specifically this category to move (the arbitrary movement-driving 'EPP' feature of the Agree-driven model of Chomky 2000, 2001).

Bardeas schematises three separate lexical fillers of Arabic D with varying featural content (in effect this remains almost a notational variant of DEF/AGR features with featural exclusivity in D as per Abney 1987):

(44)
a. [-DEF, *u*N, EPP] (indefinites)
b. [+DEF, *u*N, EPP] (definites)
c. [_DEF, gen, *u*N, EPP] (null D in CSDPs)
(based on Bardeas 2008: 12, presentation slightly adapted)

Turning first to the implications of (c) for the derivation of CSDPs, the notable implication is that following certain theoretical assumptions, the matrix D probes its c-command domain for a suitable valuer for its unspecified Definiteness feature; having located such a valuer in the form of a possessor DP in Spec,NP, it checks the genitive Case of the latter.

Thus the processes of genitive Case assignment in construct possessives and definiteness inheritance by the matrix D become one, under the heading of the reciprocal checking/valuation operation Agree. The 'smuggling' interpretation of definiteness inheritance more or less explicit in most previous head-movement

analyses is thus abandoned, perhaps the most significant innovation of Bardeas' approach outside its theory-internal reformulations.

Following the Distributed Morphology-inspired approach of Matushansky, Bardeas sees head-to-root movement as followed, at the post-syntactic level of morphological readjustment operations, by a DM Merger operation which (without going into detail concerning the technicalities) essentially reformulates the (quasi-)Spec/Head configuration produced by head-to-root movement into a morphologically affixal structure akin to the traditional configuration produced by adjunction-type head-to-head movement:

(45) a. $[_{Xmax}\ Y_i\ X_{min}\ [_{Ymax}\ Z\ t_i\ W]] \rightarrow$
b. $[_{Xmax}\ [_{X}\ Y_i\ X]\ [_{Ymax}\ Z\ t_i\ W]]$

(Bardeas 2008: 17, following Matushansky 2006: 81)

In non-CS structures where an article is present, this operation results in the affixal relation between N and the article;[24] in the CS, where the determiner is apparently null, it produces the morphophonological effects of the CS 'form'. It is notable therefore that Bardeas appears to assume the behaviour of the CS noun as a quasi-bound form is not as a result of a phonological or prosodic word-domain being formed across the CS complex (as it is, for example, for Siloni 2001, and implicitly for some other treatments), but rather because of Merger to the covert D head.[25]

2.1.5 One of Our Projections is Missing

A final recent trend in discussions of Semitic possessive structures focuses on the blocking of determiners on construct-state nouns. In one notable case, this has involved cross-linguistic comparisons on a novel scale, including the reduction of case-marking in Akkadian. These proposals treat the various 'losses' of overt

[24] If the structure in (45) were linearised simply, this would appear to predict the wrong ordering (N-D) for the definite article in particular. Note, however, that any analysis in which structural configuration alone determines affixal ordering will face a major difficulty in the case of Arabic unless some kind of structural bifurcation between definites and indefinites is advanced: the Classical/Standard Arabic definite article is prefixal (*al-*) whereas the indefinite article is suffixal (*-n*).

[25] This is not formalised in Bardeas (2008), nor indeed in any proposal known to me which assesses the possibility that the phonological environment might be CSN-D rather than the more usually assumed CSN-$N_{possessor}$, i.e. the CS complex. Following this line of thought one could assume, for example, admittedly somewhat stipulatively, that the null determiner is not exactly covert in the proper sense, but opens up some kind of phonological position to which, for example, the feminine *-t* of modern Arabic and Hebrew can attach; an idea not entirely dissimilar was briefly suggested, in different terms, by Ritter (1991: 40).

functional material as instances of broader cooccurrence restrictions of some type. The levels at which these restrictions apply and the exact mechanisms underlying them are thus a crucial issue.

We shall have substantially more to say about the theoretical underpinnings of these proposals, and their interaction with the Akkadian facts, in section 2.2 below. As such, our coverage here will be in outline form, and will be kept relatively brief, pending more extensive discussion.

2.1.5.1 Ouhalla (2009): featural identity in phonological domains

Ouhalla (2009) largely adopts the derivational scheme of CSDPs outlined by Siloni (1996), with one notable exception: as against Siloni's idiosyncratic repair mechanism for deriving possessor-adjective order in CSDPs, Ouhalla assumes that construct possessors raise to Spec,Num in parallel to subject movement in the clause.[26] The optionality this involves, which renders the effect of producing the non-construct possessive structure where movement does not take place (and which is in fact also present in clausal subject movement in some varieties of Arabic and Hebrew) is dealt with as part of a detailed argument concerning diachronic developments in western dialects of Arabic which does not concern us here. One lacuna involves the non-movement structure: if D can itself assign genitive Case to a DP in Spec,Num, head-movement is generalised, and no exclusivity between definiteness specification and and feature/item involved with case-assignment exists, why are non-construct structures available given that D must fail to assign Case in these instances? Ouhalla, unlike Ritter and Siloni, does not deal with this point.

The crucial distinction between Ouhalla's proposals and previous head-movement treatments of CSDPs is in the explanation of determiner blocking. Recall that for most previous accounts, the feature(s) or lexical item(s) which are represented by the definite article are, via some mechanism, exclusive as fillers of D with that which assigns genitive Case or is otherwise involved in the construct-type noun-possessor relation. For Ouhalla (2009), by contrast, no such exclusivity exists in syntax as such. Rather, the loss of determiners in CSDPs is seen to be the result of

[26] Ouhalla thus adopts, contrary to most previous work on the construct, a clausal/nominal parallel which sees Num as counterpart to INFL/Tense and D as counterpart to C. This has relatively little effect on the details of the analysis which interest us here, however.

spell-out restrictions; the stipulation of featural exclusivity or lexical features in syntax is abandoned.

Ouhalla appeals to the proposals concerning local deletion under identity of Ackema and Neeleman (2003). Briefly, the latter propose a mechanism whereby, within a phonological phrase, multiple occurrences of a single item may be deleted in cases of identity:

(46) $\{\text{---}_A[\text{F1 F2}]\text{---}_B[\text{F1 F3}]\text{---}\} \rightarrow \{\text{---}_A[\text{F2}]\text{---}_B[\text{F1 F3}]\text{---}\}$
(Ackema and Neeleman 2003: 686)

Ackema and Neeleman's scheme operates on features, within phonological domains (denoted by curled brackets in the representation above) which are derived from syntactic structure, but prior to insertion of lexical items for spell-out purposes. As such, for Ouhalla, it targets the DEF feature in CSDPs:

(47) $\{ [\ _D[\text{+DEF}]\ [N_{CS}]\ ]\ [\ _D[\text{+DEF}]\ [N_{possessor}]\ ]\ \} \rightarrow$
$\{ [\ _D[\sout{\text{+DEF}}]\ [N_{CS}]\ ]\ [\ _D[\text{+DEF}]\ [N_{possessor}]\ ]\ \}$
(adapted from Ouhalla 2009: 326)

By contrast, in cases of non-construct possessives, in which the possessor remains *in situ* in Spec,NP, assigned case by insertion of a prepositional marker, the relevant phonological unit is not formed, and as such the deletion mechanism does not apply.

A number of issues arise with Ouhalla's account. One concerns the definition of the relevant phonological domain and the account of its creation. Ouhalla appeals to the treatment of French *liaison* by Selkirk (1986), who defines phonological phrases generally speaking aligning with certain major syntactic phrasal boundaries. This could account for the absence of the *closure* of a phonological domain after the CS noun (cf. note 25 above), but does not directly account for the domain formed over both the CS noun and the possessor phrase, as assumed by Ouhalla; i.e., the lack of a phonological boundary formed at the left edge of the possessor DP. Furthermore, as noted in section 2.0.3.1 above, drawing an analogy with processes such as French *liaison*, which operates on underlying consonants only in the presence of a following

vowel-initial word, is by no means a simple matter; Ouhalla dismisses the divergences without discussion (2009: 323).

In addition questions can be raised about the definition of featural identity. Since deletion in this account relies upon identical feature specifications, it is not clear why a CSDP with, say, an indefinite-marked CS noun and a definite-marked possessor cannot surface as such, deletion having failed to apply. Furthermore, identity in this sense as a driver suffers when we look beyond the case of determiners. The definiteness markers which are lost in Arabic and Hebrew are invariant items, and have no overt featural sub-specifications (they have no inflectional morphology of their own, and remain invariant in form regardless of the noun stem to which they attach, save for a few instances of trivial phonological processes). Thus (unless we allow differential featural specifications for definiteness between CS noun and possessor), 'identity' is capable of a broad definition here. As we shall see, however, the issue becomes much more complicated when we begin to consider Akkadian, a language with no overt articles in which the principal effect of the construct state form is the loss of case-marking relative to the *status rectus*. Stated schematically, the Akkadian facts show that case-marking is (mostly) lost on construct-state nouns, regardless of whether the case specification of the CS noun is identical with that of the (genitive) possessor. As such, featural identity (let alone phonological identity) cannot be implemented straightforwardly.

2.1.5.2 Walter (2007): categorial identity in syntactic domains

Contrary to the formulation of Ouhalla, Walter (2007: 189-203), in the context of a wider discussion of repetition avoidance phenomena in phonology and syntax, lays out an identity-avoidance account of Semitic CSDPs which makes no reference to phonological units. Walter's discussion is the first generative account of the construct to take the rudiments of the Akkadian data into consideration; as such, though brief and schematic, it has greater cross-linguistic coverage with regard to those issues it takes into consideration than any previous treatment, and will therefore be of great interest to our discussion in section 2.2.

In particular, Walter notes the following comparative facts concerning the cooccurrence of functional material with nouns in the construct state (which we present very briefly here, as we will return to this issue in much greater detail in the

next section of this chapter). In languages which have overt articles but no overt case-marking (Hebrew, most varieties of modern Arabic), the realisation of articles is barred. In a language which has overt case-marking but no overt articles (Akkadian), case-marking is lost.[27] In Classical Arabic, where both case-marking and articles are overtly present, overt articles are barred, but case-marking remains unaltered and overt.

Thus, to Walter, it would appear that at the level of overt realisation, one (but only one) segment of the functional material associated with the projection of the CS noun is lost in construct-state structures. Walter assumes that K(ase), like D, is a functional head in the nominal projection.

Walter draws upon a proposal by Richards (2006) of a repetition avoidance effect which makes reference neither to phonological form, nor to units of phonological/prosodic structure nor strictly speaking to (post-)linearisation adjacency, but rather inheres in the linearisation process itself, and operates at the level of syntactic category within local domains (Phases, in Richards' case). Thus, for Richards, following the proposal of Kayne (1994) that asymmetric c-command determines linear order, a variety of evidence suggests that like categories within the local domain of a Phase cannot be spelled out without some form of (differentiating) repair.

Richards (2006) assumes roughly the following order of progression from structure-building towards spellout:

(48) Syntax → linearisation → lexical insertion

For Richards, hierarchical relations between like categories within a Phase produce, under linearisation, ordering statements amongst categorial/terminal nodes which cannot be resolved (<X,X>, read as 'X precedes X', where no further information exists in the relevant representation to differentiate the two). Thus the linearisation procedure, and the identity restriction operating within it, have access to, and operate on, *only* categorial information (not to feature values, lexical items, or phonetic forms). So far from being a restriction on phonetically similar elements, the

[27] In fact, lost in most but not all instances. Walter assumes the barring is total, which, as we shall see later, is not in fact true.

restriction has no interaction whatsoever with phonetic forms, or even with lexical items.

In construct-state structures, the categories involved are D and K depending on the language. Linearisation statements of the type <D,D> or <K,K> (between the matrix head and that of the possessor phrase) must be resolved by a repair which removes the relevant c-commanding node from linearisation and hence from overt spellout.[28] This results in the loss of the relevant category in the surface form of the construct noun.

There are a number of issues to be dealt with in a detailed examination of this initially rather attractive approach to the crosslinguistic facts concerning articles and case-marking. It will suffice to mention one here: as noted above, the linearisation process in Richards' model can make no reference to featural specification. In the case of Akkadian this would seem to be a benefit: case-reduction operates regardless of whether the case specification of the matrix projection is genitive or otherwise (i.e. identical to that of the possessor phrase or not). A certain difficulty arises, however, in the case of determiners. Walter's account offers no particular formalisation of the mechanism of definiteness spread. Since one of the Ds involved in the relevant ordering statement will be deleted regardless of its definiteness specification, it would seem difficult, at first sight, to rule out CSDPs with multiple independent definiteness values; certainly, the identity restriction thus formalised will operate freely regardless. We will reexamine Walter's proposal and its intricacies in greater detail in section 2.2.3.2 below, in light of more detailed discussion of the Akkadian facts.

[28] It is somewhat unclear in Walter's proposal whether it is assumed that the K projection is still present where case-marking is not overt; for compositional consistency, in the absence of a case-inheritance effect parallelling definiteness inheritance, one would like to assume it is, at least if K is the host of Case in the strictest sense as well as case morphemes. We will return to this issue later.

2.2 Akkadian and the Theory of the Construct State

We begin this section by reviewing some of the fundamentals of the construct phenomenon in Akkadian, especially where these differ markedly from known properties of the construct in other Semitic languages. For the most part, the syntactic properties of Akkadian construct possessives are quite similar to those found across other Semitic languages, and outlined in section 2.0.3 above. The relatively few notable differences, however, which mostly concern the word-level properties of the CS noun and its affixal morphology, have serious impacts with regard to the analysis of the construct phenomenon as a whole.

2.2.1 The Akkadian Possessive Construct: Outline

2.2.1.1 Adjacency, Modifiers, Nesting

The properties discussed in this subsection accord with the facts exemplified by other Semitic languages. In the Akkadian construct structure as elsewhere, strict adjacency is maintained between CS noun and possessor noun. Where the head noun is modified, these modifiers follow the possessor phrase, as generally across Semitic; this separation can be of arbitrary linear length (cf. (49)):

(48)

šumma	*awīl-um*	*{mār}*	*awīl-im*
if	man-NOM.SG	{son([CSTR.SG])}	man-GEN.SG
ṣeḫr-am	*i-š<t>ariq*		
small.MASC-ACC.SG	SBJ:3-<PERF>steal[SBJ:SG]		

"If a man has stolen the young son of a(nother) man".
Codex Hammurabi §14 (col. viii), ll. 25-28.

(49)

ṭēm	*{Sîn}-iddinam*	*{mār}*	*{Šamaš}-sumum*
news[CSTR.SG]	PN	{son([CSTR.SG])}	PN
{dayyān-(im)}	*u*	*Manum*	*{mār}*	*{Sîn}-rēmēnī*
{judge-(GEN.SG)}	and	PN	{son([CSTR.SG])}	PN
gamr-am	*ṣuḫārū*	[...]		
complete-ACC.SG	boy-MASC.PL.NOM			

"The boys …[28] the complete report of Sîn-iddinam son of Šamaš-sumum the judge and Manum son of Sîn-rēmēnī."
Greengus (1979: no. 9, ll. 3-6).

[28] A couple of broken signs at the beginning of the following two lines render the interpretation of the following material, which includes a main verb, difficult; hence I have not attempted to include or translate the next few words including the verb. It is fully clear, however, that *ṭēm ... gamram* is a fronted object and *ṣuḫārû* the subject.

Where both possessor and CS noun have modifiers, these are nested in reverse order, as expected:

(50) *ṭēm* *{kir-(îm)}* *šuāti*
news[CSTR.SG] {orchard-(GEN.SG)} that.ACC/GEN.SG
gamr-am *pān-am*
complete-ACC.SG front-ACC.SG
šu-rši-am-ma *šupr-am*
CAUS-acquire.IMPV[SBJ:2ms]-VENT-CONJ send.IMPV-DAT.1SG
"Work out the complete news of that orchard and send it to me."
AbB 4: no. 13, ll. 15-17 (Kraus 1968).

These facts are contrary to the prepositional possessive with *ša,* in which the possessor phrase appears outside all types of nominal modifiers except relative clauses:

(51) *bēl-um* *rabi-um* *ša* *māt-āt-im*
master-NOM.SG large-NOM.SG ŠA country-FEM.PL-ACC/GEN
"Great lord of the lands."
RIME 4: Samsu-iluna E4.3.7.3, ll. 3-4 (Frayne 1990: 376)

(52) *ūm-ū* *gamr-ūt-um* *ša* *{nakr-(im)}*
day-MASC.NOM.PL complete-MASC.PL-NOM ŠA {enemy-(GEN.SG)}
"The complete(d) days of the enemy."
RA 27: 149, 40, cited in CAD G 38 s.v. *gamru* b

2.2.1.2 Definiteness Inheritance

In the absence of overt determiners, the presence of definiteness inheritance as a syntactic fact is not apparent. Additionally, the presence of definiteness agreement as a semantic fact is difficult to establish. As generally with possessive structures, examples of apparent indefinite constructs are substantially less numerous than apparent definites. Although this is difficult to test in the absence of semantic judgements from speakers, however, CSDPs where the possessor DP is clearly interpreted as indefinite in context appear as a rule to be indefinite as a whole:

(53) *ann-ûm* *ina* *{Larsa}* *matīma* *ul* *i-b-baši*
this-M.SG.NOM in PlN ever NEG SBJ:3-INCEP-exist.PRET[SBJ:SG]

ab-i ***mār-ī*** *{waras}-su*
father.SG-CSTR son-MASC.PL.ACC/GEN {slave}-POSS:3ms
ana *mār-ūt-im* *ul* *i-šakkan*
for son-ABSTR-GEN NEG SBJ:3-put.PRES[SBJ:SG]
[This (sort of thing) has never happened in Larsa …]
"A father of sons does not adopt his slave as his son".
AbB 14: no. 207 ll. 18-22 (Veenhof 2005).

2.2.1.3 Loss of Case Morphology

Akkadian, unlike the languages to which the vast majority of scrutiny of the construct phenomenon within the generative tradition has been applied, has no overt articles. As such, the barring of definiteness-marking with construct-state nouns is not attested.

In Akkadian, the principal and most notable effect surrounding the construct-state noun is the absence of case morphology associated with the CS noun, by comparison with the regularly case-marked *status rectus* forms. We repeat below the relevant part of the summary table of Akkadian nominal affixal morphology given in section 1.1 (see this section for initial remarks on the surface morphology of Akkadian nouns).

(54)

			Nom	Acc	Gen
SR	Masc.	Sg.	*-um*	*-am*	*-im*
		Pl.	*-ū*	*-ī*	*-ī*
	Fem.	Sg.	*-(a)t-um*	*-(a)t-am*	*-(a)t-im*
		Pl.	*-āt-um*	*-āt-im*	*-āt-im*
			Nom	Acc	Gen
CSTR	Masc.	Sg.	*-ø / -i*	*-ø / -i*	*-ø / -i*
		Pl.	*-ū*	*-ī*	*-ī*
	Fem.	Sg.	*-(a)t-ø / -t-i*	*-(a)t-ø / -t-i*	*-(a)t-ø / -t-i*
		Pl.	*-āt-ø*	*-āt-ø*	*-āt-ø*

As will be seen by a comparison between the corresponding construct-state and SR forms, most of the construct-state forms are effectively equivalent to the SR forms without the case morphemes *-um* (nominative), *-am* (accusative), *-im* (genitive)

in the singular,[29] or *-um* (nominative) and *-im* (non-nominative) in the feminine plural. The one exception here (leaving aside the rare restricted dual) is the masculine plural, to which we shall return in the first instance in section 2.2.1.5 below.

Much of the difficulty of the analysis of the Akkadian construct inheres in attempting to explain this effect, certain complexities surrounding it which we will discuss in outline immediately below, and its interaction with cross-linguistic facts, which will be examined in section 2.2.2.

2.2.1.4 Independence of Matrix Case in CSDPs

Recall that in Hebrew and Arabic, no overt article may attach to a construct-state noun. However, definiteness marking of the same form is obligatory on adjectives modifying the CS noun. As such, definiteness features must be available, in some configuration enabling adjectival concord in definiteness.

The same is true of case features in Akkadian. In (49), repeated below, the CS noun *ṭēm* bears no case-marking morphology. The adjective *gamram*, however, does: it is explicitly marked accusative, displaying the normal suffixal morphology. The entire nominal projection is the direct object of *šurši(-am(-ma))*, so the adjective shows the case specification which is expected for this matrix nominal projection, despite the fact that the noun with which it (descriptively) 'agrees' shows no overt case-marking itself.

(49) *ṭēm* *{kir-(îm)}* *šuāti*
news[CSTR.SG] {orchard-(GEN.SG)} that.ACC/GEN.SG
gamr-am *pān-am*
complete-ACC.SG front-ACC.SG
šu-rši-am-ma *šupr-am*
CAUS-acquire.IMPV[SBJ:2ms]-VENT-CONJ send.IMPV-DAT.1SG
"Work out the complete news of that orchard and send it to me."
[work out/clarify = 'cause to acquire a front/surface']
AbB 4: no. 13, ll. 15-17 (Kraus 1968).

[29] As partially implied but by no means fully laid out in the table, certain more or less phonologically-driven processes apply in some cases when bare stems (as in the masculine singular) or the feminine singular morpheme *-t*, thus appear word-finally in the forms without case morphology. These processes principally involve vowel-insertion either within or (in the case of the *-i* quasi-morpheme) following the stem, resolving certain phonologically barred word-final environments involving consonant clusters. We pass over the details of these processes now, but will return to them in a later section in another connection.

Recall that in the case of Hebrew and Arabic determiners, the definiteness marked on adjectives which modify the CS noun will always accord with the definiteness marked on the possessor noun. That is, the definiteness specification of the adjective modifying the CS noun (which in other features, i.e. gender and number, clearly agrees with the CS noun) will never vary from the definiteness specification of the possessor. Thus, it is in principle possible that whatever element in the matrix nominal projection is the target of adjectival agreement, by whatever mechanism, inherits its definiteness value directly from the value provided by the possessor.

Naturally we do not expect to find spread of case or case-marking analogous to this definiteness spreading. We can furthermore demonstrate the absence of such spreading in the context of Akkadian case-marking. Observe that in (48), repeated below, the possessor phrase *awīlim* is explicitly marked with genitive case. The CSDP as a whole, as direct object of *ištariq*, is expected to receive accusative case. In accordance with this expectation, the adjective *ṣeḫram*, modifying the CS noun, is explicitly marked accusative.

(48)

šumma	*awīl-um*	*{mār}*	*awīl-im*
if	man-NOM.SG	{son([CSTR.SG])}	man-GEN.SG
ṣeḫr-am	*i-š<t>ariq*		
small.MASC-ACC.SG	SBJ:3-<PERF>steal[SBJ:SG]		

"If a man has stolen the young son of a(nother) man".
Codex Hammurabi §14 (col. viii), ll. 25-28.

As such, despite the lack of case-marking of the head noun, some item within the matrix nominal projection must bear a case value of a kind with which the adjective may agree, a value which - unlike that of definiteness in Hebrew and Arabic construct structures - is independent of the case of the possessor phrase.

2.2.1.5 Case Preservation: the Masculine Plural

The general loss of case-marking in the Akkadian CS forms is subject to one definite exception: masculine plural nouns. This fact correlates with an idiosyncracy of their suffixal morphology vis-à-vis the rest of the Akkadian nominal paradigm.

The masculine plural suffixes of Akkadian nouns, attaching directly to the noun stem, are *-ū* (nominative) and *-ī* (non-nominative; an alternative form *-ē* applies

to a small subset of stems[30]). From the general schema of suffixal forms shown in (54), it will be noted that the CS form is without case marking in all instances in which case is marked by a morpheme distinct from the marking of number. In the masculine plural, by contrast, it appears that the marking of number and the marking of case is fused in a single vowel. The case element, which is indivisible in the surface morphology from the number(+gender?) element, is preserved in the construct-state form. There is thus no surface difference between the CS form and the SR form of masculine plural nouns; if the case-marking morphemes of *mār-ū* in (55) or *ward-ī* in (56) were to deleted, number-marking would necessarily be lost as well.

(55)

ana	*warkī-t*	*ūm-im*	*Buzāzum*
to	future-FEM.SG[CSTR]	day-GEN.SG	PN
Lamassatum	*u*	***mār-ū***	***Buzāzum***
PN	and	son-MASC.PL.NOM	PN
ul	*i-raggam-ū*		
NEG	SBJ:3-make_a_claim.PRES-SBJ:3mpl		

"Buzāzum, Lamassatum, and the sons/children of Buzāzum will not raise a claim at any time in the future."
VAB 5: no. 32, ll. 15-18 (Schorr 1913).

(56)

awīl-ē	***ward-ī***	***šarr-im***
man-MASC.PL.ACC/GEN	slave-MASC.PL.ACC/GEN	king-GEN.SG
ana	*šīb-ū-t-im*	*a-škun-ak-kum*
to	witness-ABSTR-FEM.SG-GEN	SBJ:1sg-put.PRET-VENT-DAT.2ms

"I have provided to you the men, servants of the king, to be witnesses."
AbB 3: no. 52, l. 24 (Frankena 1968).

(57)

mīnum	*ša*	*nīš*	{*šarr-im*}	*i(p)-pī*
what[CSTR.SG]	ŠA	oath	{king-(GEN.SG)}	in-mouth.CSTR
awīl-ē			***tur-gulla***	*ta-š<tan>akkan-u*
man-MASC.PL.ACC/GEN			PlN	SBJ:2-<ITER>put.PRES[SBJ:SG]-SBJV

"What is this about you keeping trying to put an oath by the king in the mouth of the men of Tur-Gulla?"
AbB 14: no. 218, ll. 4-5 (Veenhof 2005).

[30] This form has been taken by some to derive from vowel coalescence based on an underlying form *-ā(')-ī*, i.e. an application of the standard suffixal forms to an idiosyncratic plural 'stem' (cf. Huehnergard 2000: 198), where *-ā* presumably marks number independently of case, in some sense. The sequence *a-i* resolves generally in the language to *ê*. We leave aside the diachronic aspects of this question here, noting only that in light of the fact that the form of the suffix *-ē* together with the assumed corresponding nominative form *-ū* (in this view deriving from *-ā-ū*) is preserved in the construct-state form, the vowel coalescence effect seems unlikely to be applicable synchronically as a phonological process, given the facts concerning CS forms under other instances of vowel coalescence sketched in section 2.2.1.6.

2.2.1.6 Case Loss and Vowel Coalescence

Given the facts above concerning the masculine plural form of CS nouns in Akkadian, it might be thought that the general loss of case-marking in the other CS forms could be reduced to a virtually phonological process: due to some effect of the usually-assumed phonological or morphological unit formed by the CS complex, the suffixes undergo some form of deletion or suppression required, for some reason, by the quasi-affixal status of the relation. This is barred in the masculine plural solely because of the *form* of the relevant affixes, which happen to fuse number and case in a single morpheme, thus 'rescuing' overt case-marking due to their being no available strategy for the suppression of the case affix to the exclusion the number affix.

Another fact of Akkadian nominal morphophonological behaviour offers a certain degree of contrary (or at least constraining) evidence in this regard, however. In the case of vowel-final stems, well-known vowel coalescence effects applying within the word domain throughout the language have widespread effect across various Akkadian inflectional paradigms, including noun stems. Briefly, where a vowel-final stem comes into contact with a vowel-initial suffix, various phonological coalescence rules apply in most, but not all, cases (the notable exception in OB is the sequence *i-a*, which remains unchanged), fusing the final vowel of the stem and the initial vowel of the suffix into a single long vowel.

For illustration, consider the case of the noun which surfaces in the SR nominative as *pûm* ("mouth"; also variously "information, statement, opinion command"). The SR singular forms of this noun in OB are *pûm* (nom.), *pi-am* (acc.) and *pîm* (gen.). The underlying stem seems to be *pī*. Thus the final vowel of the stem is fused with the case morphology in the SR. However, instead of retaining case-marking in the CS form in the cases of vowel coalescence (as e.g. *pûm* or *pû* in the nominative), whilst revealing a bare construct-state form only in the accusative where coalescence does not occur, the bare stem, *pī* appears in the CS in all cases. (58) provides an example where nominative case would be expected (cf. also the genitive example in (57) above). The SR nominative is shown in (59).

(58)

pī	*il-im*	*i-šanni*
mouth.CSTR	god-GEN.SG	SBJ:3-change.PRES[SBJ:SG]

"The opinion of the god will change".
YOS 10 17:42, cited from CAD P 464 s.v. *pû* A 4

(59) *pûm* *eli* *awīl-im* *i-š-šakkan*
command.NOM.SG on man-GEN.SG SBJ:3-PASS-put.PRES[SBJ:SG]
UCP 9 376:34, cited from CAD P 461 s.v. *pû* A 2a

Therefore it appears that whatever mechanism results in loss of case-marking, it must not apply sufficiently late in the spellout process that loss of the case suffix would imply loss of the entire fused vowel of the final surface form. Note that instead of this surface vowel being lost entirely, the underlying stem-vowel can be spelt out in its place (so the resolved form is *pī*, not *p*); i.e. it must occur before the vowel coalescence process has applied. Of course, this does not preclude that the mechanism in question is subject to prosodic or phonological units established over a representation which is prior to the final phonological form. However, it does at least establish that this mechanism is not applied to a phonetic representation at such, and must operate on structural information.

2.2.2 Theoretical Considerations

2.2.2.1 A Bound Form?

As discussed in section 2.1, most previous analyses of the construct phenomenon assume that the complex comprising the construct state noun and the possessor phrase forms some kind of tight-knit structural unit, defined in morphological or phonological terms. Exact formulations differ substantially. The CS complex is an incorporation-formed 'word' (Borer 1996, 1999), a DM-style syntax-formed 'word', i.e. a morphosyntactic phrase under a categorising head (Shlonsky 2004), a 'phonological phrase' (Ouhalla 2009), a 'prosodic domain' (Siloni 2001), *inter alia*.

Regardless of (most) differences of formulation, however, this assigns a similar status to the CS noun as to bound forms bearing suffixes. In particular, we should predict as a starting hypothesis that there will be an alignment between the CS form and the form of the noun bearing pronominal suffixes. There are, indeed, substantial similarities in most relevant languages between these forms. For instance, in various varieties of Arabic, they are aligned in manifesting the *-t* segment of the feminine morpheme against the default-state form (cf. (4) in section 2.0.3.1, repeated as (60) below with the addition of (60)e-f. showing the suffixal form); the

idiosyncratic Hebrew masculine plural CS form is also shared with the form with pronominal suffixes:

(60) a. *madras-a*
school-FEM (default state)
b. **madrasat* (when not CS)
c. *madras-at* *Salwa*
school-FEM.CS PN
"Salwa's school"
d. **madrasa Salwa*
e. *madrasat-ha*
school-POSS:3fs
"her school"
f. **madrasa-ha*

(Bardeas 2008: 4, adapted)

Some of the Akkadian facts provide an interesting opportunity to partly unpick some aspects of analyses which assign the CS-complex word-like properties. The following sections are representative, and naturally do not exhaust the material that could be cited on this question from the discoverable facts of Akkadian phonology and morphology.

2.2.2.1.1 Stem Readjustments

Where the noun stem is devoid of affixal morphology, phonological readjustments take place in order to resolve the phonologically prohibited occurrence of word-final consonant clusters. In the case of the bound form, these readjustments apply only where the suffix is consonant-initial, i.e. where suffixation creates a consonant cluster, as shown in the paradigmatic summary given in (61). In the case of the CS form, however, the readjustments apply regardless, as summarised in (62).

(61) a. *kalb-um*
dog-NOM.SG
b. *kalab-šu*
dog-POSS:3ms
c. **kalb-šu*
d. *kalb-ī*
dog-POSS:1sg
e. **kalab-ī*

(62)a.	*kalab*	*šarr-im*
	dog.CSTR	king-GEN.SG
b.	*kalab*	*awil-im*
	dog.CSTR	man-GEN.SG
c.	**kalb*	*awilim*

In light of these facts, it would seem that there is some initial evidence for a structural differentiation (at least, in phonological or word domains) between the CS noun and the bound noun.

2.2.2.1.2 Domains and Case in the CS and the Bound Form with Pronominal Suffixes

In Akkadian, many of the surface morphological characteritics of the bound form of the noun with possessive pronominal suffixes are the same as those of the CS, but there are certain notable exceptions. Two facts in particular should be noted here.

The first, already mentioned, concerns phonological processes to which nouns are subject in the presence of affixation. We saw in the previous section some of the most salient examples of this. Furthermore, processes of consonant assimilation, notably the resolution of dental-sibilant sequences in the word domain to *-ss-*, likewise do not apply in the CS complex, but do apply in the bound form:[31]

(63)a.	**šub-at-šu → šubassu*	
	dwelling-FEM.SG-POSS:3ms	
b.	*šub-at*	*šarr-im*
	dwelling-FEM.SG.CSTR	king-GEN.SG
c.	**šub-as sarr-im*	
d.	**šub-as šarr-im*	

(Buccellati 1996: 48, presentation adapted)

[31] Occasionally and irregularly some phonological interaction across the CS boundary is attested, such as voicing assimilation of dental consonants and place assimilation of dentals to labials; for some examples, cf. Buccellati (1996: 32, 48). These may well be processes reflecting (very) late, non-obligatory phonetically-driven constraints on articulation which apply regardless of structure.

The second and most striking fact concerns case morphology. Recall that, outside the masculine plural, case morphemes are absent from the CS form of nouns regardless of the particular case specification the CSDP bears. In the nominative and accusative, the same is true of the bound form before consonant-initial suffixes. Strikingly, however, the bound form with such suffixes retains a distinct form for genitive case throughout; cf. the accusative and genitive variants of otherwise identical items in (64). Furthermore, the feminine plural bound form is case-marked and has distinct forms for both the nominative and the accusative/genitive, i.e. the same division as in the normal SR (though with slightly different surface forms), as seen in (65).

(64) *ana* *šulm-ī-ka* *a-špur-am*
to wellbeing-GEN-POSS:2ms SBJ:1sg-send.PRET-VENT
šulum-ka *šupr-am*
wellbeing-POSS:2ms send.IMPV[SBJ:2ms]-VENT
"I wrote for [information about] your wellbeing. Send [information about] your wellbeing!"
Sigrist (2003: no. 60, ll. 7-9)

(65) *u* *{Warad}-{Šamaš}* *ana* *aššāt-ī-šu*
and PN to wife-FEM.PL-ACC/GEN-POSS:3ms
ul *aššāt-ū-ya* *i-qabbī-ma*
NEG wife-FEM.PL-NOM-POSS:1sg SBJ:3-say.PRES[.SBJ:SG]-CONJ
"And should Warad-Šamaš say to his wives, 'You are not my wives', [then …]".
VAB 5: no. 5, ll. 20-22. (Schorr 1913)

Perhaps the most intriguing observation to be made in light of all this is the following: generally speaking, the 'closer' a phonological or morphological relation is, the more potential it has for affecting the structure of, or the exponence of features relating to, the item to which it attaches. We would therefore expect that the pronominal suffixes would have a more determining relationship to the nouns to which they attach than the possessor DPs of conventional construct-state possessives. Why, then, do the forms of Akkadian nouns before possessive suffixes have a very significantly *richer* capacity for overt case-marking than construct-state nouns? In the case of the singular suffix-marked genitive versus the zero-marked nominative and accusative, there appears to be no obvious synchronic motivation for this split in the form of the case suffixes. We cannot appeal in any way to 'fused exponence' to explain the 'preservation' of case-marking here, as with the construct-state masculine plural forms.

All this lends some initial doubt to the hypothesis that there is a simple parallel between the construct complex and any word-like phonological or morphological domain. Admittedly, some of these problems may be dealt with if we hypothesise that the 'affixing-like' properties of construct possessives in fact result in the construct-state noun acting like a *prefix*, and we treat the environments of prefixation and suffixation as having fundamentally different morphophonological properties (cf. e.g. Kaye 1995).

It should also be noted that outside the construct complex, plausible environments for vowel coalesence or other inter-word processes driven by the presence of an initial vowel of a *lexical stem* are dubiously present in Akkadian. Furthermore, in some cases in the tensed verbal agreement paradigm, what may be underlying vowel contact results in the deletion of the second vowel rather than coalescence. Interestingly, this process in verbal forms takes place even in instances where vowel coalescence of the standard type would not apply:

(66) a. *u-ammar → ummar (*âmmar)
b. *i-aḫḫaz → iḫḫaz (*iaḫḫaz)

Despite these doubts about the significance of some of the facts reviewed in the preceding sections, we can nonetheless consider it clear that notions of the construct complex as word-like are not without further specification a valid explanation for properties of the construct phenomenon.

2.2.2.2 Beyond Determiners: The Classical Arabic/Akkadian Problem

The true interest which the Akkadian data brings to the analysis of the construct becomes clearest when some of the significant facts sketched above are placed side-by-side with the comparator phenomena of other Semitic languages. In this respect the crucial issue is the interaction, already hinted at, between the barring of determiners in some Semitic languages, the (partial) barring of case-marking in Akkadian, and the facts in the one relevant language in which both definiteness and case are overtly marked on nouns. The initial notice of this intriguing comparison in the generative literature is due to Walter (2007).

As discussed at length in preceding sections, Hebrew and most modern Arabic varieties - languages which manifest overt definiteness marking, but no overt marking

for case - show barring of determiners in the CSDP. As we have seen above, Akkadian - a language which has morphological case-marking throughout the forms of the default 'state' of the noun, but no overt marking for definiteness - shows loss of the case-marking morphology (except in the masculine plural forms where indivisible from number-gender morphology).

In one Semitic language, Classical Arabic, marking for definiteness and marking for case coexist overtly. The status of definiteness and case morphology in Classical Arabic is thus a question of crucial interest, once set alongside the background of the Akkadian facts. This evidence is unambiguous: definiteness-marking of the CS head noun is barred; morphological case-marking is entirely preserved:

(67) a. *al-kutub-u /-a /-i* (default state, definite)
DEF-book.PL-NOM/ACC/GEN

b. *kutub-u/a/i-n* (default state, indefinite)
book.PL-NOM/ACC/GEN-INDEF

(68) a. *kutub-u* *(a)š-šā'ir-i*
book.PL-NOM DEF-poet.SG-GEN

b. **al-kutub-u* *(a)š-šā'ir-i*
DEF-book.PL-NOM DEF-poet.SG-GEN
"the poet's books"

c. *kutub-u* *šā'ir-i-n*
book.PL-NOM poet.SG-GEN-INDEF
"a poet's books"

d. **kutub-u-n* *šā'ir-i-n*
book.PL-NOM-INDEF poet.SG-GEN-INDEF

The comparison between loss of definiteness-marking and loss of case-marking is not of course a simple one, as Walter (2007) assumes that it is. We have already noted the major complications of the Akkadian data, in this context most significantly the masculine plural aberration. Classical Arabic is not without its own slight peculiarities. One concerns in the CS form of masculine ('sound', i.e. affixal[32]) plurals and duals. A vocalic segment of the relevant suffixes expresses case and secondarily is specific for number-gender, whereas the invariant segment of the suffix (*-na*/*-ni*), which seems to represent number-gender alone, is lost. We repeat the summary of the relevant affixes from section 2.0.3.1, noting additionally that the

[32] As opposed to so-called 'broken plurals' which mark number by vowel reconfigurations internal to the consonantal stem, and share the affixal case morphology of singulars.

prefixal definite article also attaches to these forms (but the indefinite suffix does not; indefinites are bare), and is still barred in the CS form in additional to the suffixal reductions:

			Default	CS	Example forms (default ~ CS)
(69)	a.	M.pl. nom.	*-ūna*	*-ū*	*(al-)mu'allimūna ~ (*al-)mu'allimū*
	b.	M.pl. non-nom.	*-īna*	*-ī*	*(al-)mu'allimīna ~ (*al-)mu'allimī*
	c.	Dual nom.	*-āni*	*-ā*	*(al-)mu'allimāni ~ (*al-)mu'allimā*
	d.	Dual non-nom.	*-eyni*	*-ey*	*(al-)mu'allimeyni ~ (*al-)mu'allimey*

2.2.3 Generative Approaches to the CS in the light of Akkadian

Most previous analyses of the construct phenomenon cannot be simply extended to Akkadian. In particular, prior accounts generally have no mechanism for explaining the loss of case-marking, let alone its complexities. On the one hand, most proposed mechanisms for the barring of determiners have no extensibility to other categories. On the other, the one apparent (largely unformalised) aspect of existing accounts which might have some bearing, the assumed special domain of the CS complex and its morphophonological effects on the CS noun, does not have sufficient explanatory potential to extend beyond the sporadic cases of phonological and affixal alternations in other languages to the phenomenon of the wholesale loss of case morphemes in Akkadian. As noted in section 2.2.2.1, case-marking, though reduced, is *richer* in the bound forms of Akkadian nouns than in the CS forms, which is not at all expected if the formation of a special morphological or phonological domain is held to be solely responsible for its loss.

2.2.3.1 'Loss'

In view of the failure (or serious complication) of the analysis of the CS form as comparable to a bound form, it is necessary to examine the nature of the 'loss' of case-marking as the central issue. Section 2.2.1.4 demonstrated two crucial facts in this regard: first, that modifers of the CS noun display case morphology, contrary to the bare head (as with definiteness concord in the relevant languages); second, and by contrast differentiating Akkadian case morphology from Hebrew/Arabic definiteness-marking, the case value is clearly that of the matrix nominal projection, which varies

independently of the genitive case of the possessor phrase. By contrast, the (at least, morphosyntactic) definiteness value associated with adjectives in the matrix projection, where overt, is always identical with the definiteness value of the possessor phrase.

From this, we determine that the matrix nominal projection (or some element within it) bears a case specification (even though the noun does not display it affixally); and that this value, unlike that of definiteness in comparator languages, is independent in the matrix projection, not inherited. This rules out in itself the extension to Akkadian case of many of the mechanisms proposed by early analyses of 'definiteness spread', which rely upon agreement, generally in a Spec-Head configuration, in definiteness between the possessor DP and the noun undergoing movement (Ritter 1991, Siloni 1996, *inter alia*); or between a compound-like maximal projection of N containing the CS complex and covert D itself (Shlonsky 2004). By extension, the notion that matrix D lacks an independent specification for definiteness, common to most prior analysis of the construct phenomenon, cannot be extended to the matrix case specification of Akkadian.

We are thus left with several logical possibilities: first, the mechanism driving barring of determiners is wholly distinct from the mechanism driving loss of case morphology; alternatively, determiner-barring and case-loss *are* driven by similar underlying phenomena, but in the case of determiners definiteness inheritance is a separate, additional process unrelated to that of 'loss'. Thirdly, it is conceivable, though perhaps hardly probable, that the mechanisms are similar but operate in different fashions between the two categories: for definiteness operating only in instances in which the relevant definiteness *value* is identical between matrix and possessor projections (and perhaps fails to resolve at all in cases of varying definiteness values, leading to an invalid derivation), but in the case of case-marking operates regardless of specification.

2.2.3.2 Loss as a Spell-out Phenomenon

The last rather esoteric proposal is essentially what we would obtain by extending the deletion-under-identity mechanism of Ouhalla (2009) to the Akkadian facts. Recall from section 2.1.5.1 above that Ouhalla proposes determiner-blocking occurs as a spell-out phenomenon in cases of featural identity within phonological phrase

domains, formed in the CS complex, in his case, due to the lack of a phrasal edge boundary following the N+D complex formed by head movement (leaving aside some complications). We would then have to assume that whilst definiteness features fail to spell out only when identical in value, case features, however implemented, are subject to the deletion process regardless of value. Of course, various formulations of the nature of definiteness and case specifications in the nominal projection are in principle possible, depending on much broader assumptions. None, however, seems immediately capable of overcoming the intrinsic difficulty.

Nonetheless, the first option (determiner blocking and case loss as unrelated processes) is analytically unattractive. Not only does it fail to capture the 'one category only' property of the 'loss' phenomenon when viewed together in light of the Akkadian/Classical Arabic comparison, but virtually any other attempt to explain loss of case-marking will founder on the inapplicability of morphophonological domains as a sufficiently explanatory property in the light of properties of Akkadian bound forms.

An instance of the second type would result from an expanded version of the analysis of Walter (2007: 199-203). Although developing a parallel account of determiner-blocking and case-loss which does not suffer from the problems associated with the nature of featural specifications inherent in Ouhalla's otherwise not entirely dissimilar account, Walter's proposal is only briefly elaborated and leaves a number of important lacunae. Most specifically, no mechanism driving (the positive aspect of) definiteness inheritance is envisaged; adjective ordering in CSDPs is also left aside.

As noted previously, Walter has been the first to briefly take note in the generative field of the comparison between the forms of the construct state at the word level taking into account the Akkadian facts. Summarising again, according to Walter's rather simplified characterisation, those languages which manifest overt determiners but not case-marking bar the surfacing of determiners on construct-state nouns; Akkadian, with overt case-marking but no overt determiners, bars the realisation of case-marking in most (but not quite all) environments; Classical Arabic, with both overt determiners and overt case-marking, bars determiners but leaves the realisation of case-marking on construct-state nouns unaffected relative to the default of non-construct nouns.

This led Walter to conclude that the two forms of reduction were comparable and unifiable. One (but only one) of the two elements, definiteness and case, is barred

from realisation in association with a noun in the construct state. Which of the two is barred depends upon the (overt) lexical inventory of the given language: where determiners are overt, these are lost; where only case-marking is overt, it is subject to a similar mechanism.

As for Ouhalla, but with quite different and more extensible underpinnings, for Walter the 'loss' phenomenon is indicative of a spell-out restriction. As with Ouhalla, the restriction involves identity avoidance within local domains. Summarily, CSDPs are taken to involve a structure in which an invalid configuration of categorial identity obtains between the functional material in the matrix nominal projection and that of the possessor phrase, which must be resolved by the adjustment of the (post-narrow syntactic) structure into a form in which a sequence of these like categories does not arise.

Following Richards (2006), Walter assumes that (a) the restriction is operative within a syntactically defined domain (the Phase of Chomsky 2001), and (b) operates prior to lexical insertion, but following narrow structure-building; precisely, it inheres in Richards' version of the linearisation mechanism defined by Kayne (1994), which takes asymmetric c-command relations to be the sole and total determinant of linear ordering.

Richards' formulation, which he terms the Distinctness Principle, is that 'identical feature bundles in an asymmetrical c-command relation may not co-occur within a strong phase'.[33] This is applied to all asymmetrical c-command relations within the phase domain regardless of adjacency in their linearised form, or any form of 'closeness' of hierarchical relation (compare the 'total ordering' determinations of Kayne's original exposition of the LCA; Kayne 1994: 3-23).

As such, we are returned in a way to a newly strengthened form of Kayne's original reliance on categorial 'terminal nodes' as opposed to lexical (or indexed) nodes differentiated otherwise than by their categorial-featural content. Richards' formulation formalises this by means of late lexical insertion (lexical insertion takes place after linearisation): the linearisation mechanism cannot respond to non-featural content. Indexes or like mechanisms differentiating featurally identical items are

[33] Much of Richards' proposal, followed by Walter, assumes that the relevant information is (only) syntactic category (Richards 2006: 55). It is crucial to Walter's account of the construct phenomenon that, at least in the case of D and K, 'feature values' of whatever kind are not available as rescuing differentiators for the purposes of the linearisation constraint. Richards' final proposal is somewhat at variance with this; we leave aside the complications for the time being.

likewise excluded (following Chomsky 2000). Thus, a category X c-commanding a like category within a phase domain will produce a Kaynean ordering statement <X,X>, in which the linearisation procedure cannot distinguish the two instances, and hence an ordering cannot be determined. One possible solution is to eliminate one of the offending instances from the set of nodes to which linearisation applies.

Thus for Walter, in the case of the construct construction, the Hebrew and modern Arabic structure involves a DP containing a distinct DP as in (70)a; in Akkadian (simplifying questions which we comment on further below), KP contains KP as in (70)b. Walter represents the possessor as complement to N, although the more traditional subject-like site in a lexical or functional specifier appears equally compatible with her adaptation of Richards' linearisation constraint (but would imply movement of N(P)):

(70)a. $[_{DP}\ D_1\ [_{NP}\ N\ [_{DP}\ D_2\ \ldots\ ]\ ]\ ]$

b. $[_{KP}\ K_1\ [_{NP}\ N\ [_{KP}\ K_2\ \ldots\ ]\ ]\ ]$

(adapted from Walter 2007: 199)

Walter is not entirely explicit on the question of Classical Arabic, in which the overt presence of two functional elements clearly interacts with the deletion process. Leaving aside certain complications and focusing for the moment only on the operation of Walter's deletion mechanism, we can imply two possibilities, one in which matrix KP dominates matrix D, the other in which DP dominates K:

(71)a. $[_{KP}\ K_1\ [_{DP}\ D_1\ [_{NP}\ N\ [_{KP}\ K_2\ [_{DP}\ D_2\ \ldots\ ]\ ]\ ]\ ]\ ]$

b. $[_{DP}\ D_1\ [_{KP}\ K_1\ [_{NP}\ N\ [_{DP}\ D_2\ [_{KP}\ K_2\ \ldots\ ]\ ]\ ]\ ]\ ]$

It appears from this extrapolation that the deletion mechanism will operate as desired only in the case of (71)b.: i.e. only provided that (a) D is taken to be the outer category, and (b) D forms a phase boundary which blocks phase-internal c-command of embedded K by matrix K. If KP dominates D and is the relevant phase head, we would expect K to delete, incorrectly. If KP dominates D and neither is a phase head, we would expect *both* categories to delete. If KP dominates D, only if *D* is the relevant phase head would the correct prediction fall out; this last would cause a number of obvious and widespread difficulties, not least, for example and relevantly

to our present purposes, case concord across multiple constituents within the nominal projection; regardless, it would be rather non-standard within Phase theory to assume that the phase head uppermost in an extended projection is not the highest functional head of that extended projection.

In addition, this necessarily leads to problems in accounting for Akkadian, *if* it is assumed that the D projection is still present in the representation:[34] deletion of K will be blocked by the intervening phase head, at least under the assumption that D is a *unitary* projection. Walter's account is thus simply implementable, even in its limited terms, only if the D projection is assumed to be absent in Akkadian.

As we mentioned in the previous chapter, Walter attempts to use this mechanism to unify construct possessives and Akkadian construct-headed relative clauses, assuming that both relative clauses and possessors of the relevant kinds are complements of N. Walter's account relies upon a head-external analysis of the relative clause structure. Further, it relies upon certain absolute parallellisms between the construct construction proper and the environment of the construct-like form of some relative clause heads. As we showed in the previous chapter, these assumptions necessarily fail in their ability to capture important facts of the Akkadian CHRC construction, and are untenable in light of these facts. This being the case, Walter's analysis of relative clauses cannot be maintained, a secondary but substantial weakness for her proposals regarding the DP-internal construct.

2.2.3.3 Narrow Syntax and Loss

It will be noted from the preceding discussion that existing attempts to locate the construct-state 'loss' phenomenon at the level of spell-out (i.e. those approaches which have argued that the feature which does not spell out is present in the matrix nominal projection) either fail to extend to a generalised view of the phenomenon taking into account Akkadian case-marking, or provide insignificant syntactic distinguishers between the construct phenomenon and possessive structures which

[34] Note that even if covert elements (such as the possible Akkadian D projection) are not subject to linearisation and hence do not participate in the identity-avoidance mechanism, we will still have a difficulty given that D should in any case function as a phase head. This is unambigously necessary for theoretical reasons given general precepts of phase theory; to take the simplest possible example, null C in English should constitute a phase-head – *especially* under the assumption of the Distinctness Principle.

manifest no such 'loss' phenomenon, whilst also failing to provide an account of some of the core properties of the construct construction aside from the CS form.

Furthermore, in the absence of a potential explanation of (all or some types of) the loss phenomenon on the basis of the formation of a bound-type form, it is necessary to consider a rather basic theoretical problem. According to standard assumptions, movement creates chains which are either totally or at least featurally uniform. In the copy theory adopted by Chomsky (1993) and heavily pursued since, movement creates a complete copy, together with all features or properties of the item(s) involved. Even outside the copy theory, some version of Chain Uniformity is expected to hold, such that traces of movement are uniform in terms of features with the moved item. Yet the CS, if analysed as reflecting some type of movement, leaving according to these assumptions a trace/copy, will not via any mechanism concordant with these assumptions lose access to features with which its trace/copy is associated (unless neither enter into the relevant association). Say for the sake of argument that the 'stripping' of functional morphology on the CS noun involves the extraction of a subconstituent of the nominal projection (for instance N or NP) by movement to a higher projection outside that associated with the features which are not realised. Even though the noun (phrase) has been extracted from the environment in which it would normally come into association with the relevant projections, unless two entirely distinct sequences of movement apply in the CS and non-CS structures, only the latter bringing the head noun into association with these features, which would be very difficult to maintain in practice, its trace/copy should still enter into the normal relations, and hence the features in question would be expected to spell out overtly in some configuration.

In the following section we pursue a line of analysis which deals with this problem directly. In doing so, we propose to account for the crosslinguistic facts of the loss phenomenon by differential syntactic properties driving similar but divergent movements. We examine in this connection theoretical proposals an adaptation of which circumvents the possible difficulties with movement-based accounts of the CS. These same proposals offer clear directions towards defining spell-out phenomena which may suffice to suppress the surface realisation of the elements involved following the creation by syntactic processes of the appropriate structural environment. Thus, although the fundamental mechanisms of the loss phenomenon are seen to be related to spell-out processes, the environment permitting the loss

phenomenon to occur is syntactically driven in a detailed and specific sense. We show that this kind of approach to the construct avoids intrinsic difficulties of a (mostly) pure spell-out approach such as that of Walter (2007), as well as permitting us to capture certain facts which have proved difficult, or have not been examined, by prior accounts.

2.2.3.3.1 Movement and 'Peeling'

Under standard approaches to argument movement, variously implemented in specific theoretical models, movement is (partially or wholly) associated, by one mechanism or another, with the acquisition, valuation or checking of Case on the part of the moved nominal. Consider the example of (simple) passivisation. An argument is generated (merged) in the structural object position. There it receives a θ-role, but does not receive accusative Case, which is not assigned by passive verbs. To acquire (value, check) Case, or to discharge features of the attracting case-assigner (valuer, checker), the argument enters into a relation with a case-assigner outside its local environment, which frequently results in movement of the nominal constituent to a higher Case position.

A strikingly alternative proposal regarding the syntax of such Case-related processes as passivisation has been put forward in the theory of Caha (2009a), developed within the framework known as 'nanosyntax' (on the basic assumptions of which see Starke 2009), a radically decompositional model of syntactic structure which also explores the implications of a spellout process whereby multiple terminals may be lexicalised by a single lexical item corresponding not to a feature bundle in a single syntactic node, but potentially to larger contiguous segments of structure.

Leaving aside the details of the framework for the time being, let us return to Caha (2009a)'s proposals concerning case and movement. Under Caha's assumptions, case features are not merely present as separate projections in syntax, but as multiple such projections layered in the highest functional layer of the nominal constituent. Thus (at least) each case 'value' (nominative, accusative, etc.) is represented by a projection of a feature. Instead of being mutually exclusive, more or less atomic

entities, case-related features are proposed to successively contain one another in a hierarchical layer of functional projections:[35]

(72) $[_{\text{Comit}}$ F $[_{\text{Inst}}$ E $[_{\text{Dat}}$ D $[_{\text{Gen}}$ C $[_{\text{Acc}}$ B $[_{\text{Nom}}$ A $[_{\text{NP}}$ …]]]]]]]
(partial Case hierarchy adapted from Caha 2009a: 24)

This proposal of successive containment is principally motivated as a means of deriving crosslinguistic patterns of and restrictions on syncretism in case-marking paradigms, laying out the details of which is beyond the scope of this discussion (cf. Caha 2009a: 5-136; Caha 2009b). However, it also provides an interesting possibility for a reassessment of the mechanisms of some types of argument movement (Caha 2009a: 137-185). For the moment let us provide a very basic presentation. In this model, passivised arguments are inserted in the structural object position *with* the equivalent of accusative Case. The empty Case position of the subject, however, attracts a constituent headed by the 'nominative' feature. Under the containment analysis of case projections in nominal structure, the Accusative constituent in the structural object position contains a Nominative constituent. As the closest available such constituent, the Nominative projection within the Accusative projection subextracts in a type of movement Caha, following unpublished work of Michal Starke, terms 'Peeling'. An outline schema of this type of movement in simple passives is presented in (73), abstracting over a number of particulars of Caha's model, such the nature of the attractor.

(73) $[_{\text{TP}}$ [$_{\text{'NOM'}}$ A $[_{\text{DP}}$ the dog]] was attacked [$_{\text{'ACC'}}$ B ~~[$_{\text{'NOM'}}$ A [$_{\text{DP}}$ the dog]~~]]]

It will be seen from this outline structure that the Peeling analysis of A-movement has a number of aberrant properties under the assumptions of more traditional approaches. Most strikingly, the 'moved' constituent has, in the terms of these approaches, two differing Case specifications: nominative in the case of the moved constituent, accusative in the case of the larger constituent containing the trace/copy of the nominative projection. In traditional terms this violates the Case Filter, even if the undivided containment representation is not regarded as doing so.

[35] I follow Caha's convention in indicating this by giving the features themselves abstract labels (A 'for' nominative, B 'for' accusative, etc.), whilst indicating their relation to the relevant case values by labelling the projection of A 'Nominative', the projection of B 'Accusative', and so on.

In languages where this is overt, the subextracted nominative constituent will appear with nominative case morphology. No accusative case morphology will be spelt out, somewhat contrary to expectation. Caha, adapting for a quite different set of assumptions the intuition of so-called Case Absorption in passives, assumes that passive verbal morphology will additionally spell out the stranded Accusative ('B') feature.

So far, the Peeling analysis has mostly been applied to A-movement analysed as extraction from within (split) Case projections (Caha 2009a: ch. 4, cf. also e.g. Medová 2008). Caha further suggests it may fulfil the role of a mechanism for subextraction from larger moved constituents for which further movements are blocked because all relevant properties which drove its movement have been satisfied.

In the following sections we will seek to argue that, based on particular assumptions concerning stranding in a Peeling-like analysis of a certain kind of movement within the nominal projection, the facts of the loss phenomenon in the construct construction receive an interpretation which is so far, to the author's knowledge, unique in providing the basis for an account both of the crosslinguistic patterns of the phenomenon in the light of Akkadian, and certain other puzzling properties which existing accounts with the potential for such extension appear unable to explain.

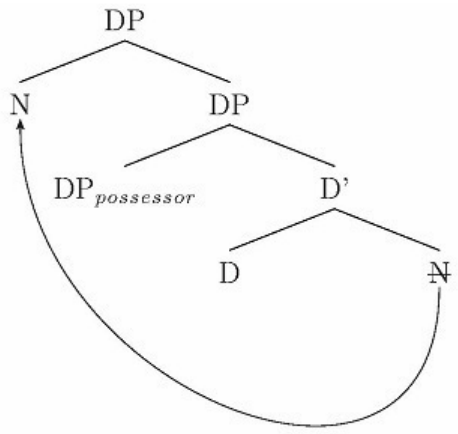
2.2.3.3.2 Loss as Stranding

In this section we begin to formulate a reanalysis of the loss phenomenon followed by non-spell-out of an affixal functional head in the particular extraordinary configuration thus established. We illustrate the basic premise of this idea here in summary form, prior to a examination of details in subsequent sections.

We adopt from traditional movement analyses of the construct the intuition that in the construct structure both the CS noun and the possessor phrase are located, in the surface form, in the area of the upper functional layer of the nominal projection. Akkadian nominal phrases are overwhelmingly noun-initial. As such we assume that, throughout Akkadian (and for the most part Semitic as a whole) nouns raise to a high position in the upper functional layer of the nominal projection (we leave aside the precise nature of N or NP-movement for the time being; N is used as a cover term in the representations which follow, but it is almost certainly a projection, or a complex

head, rather than a minimal category). Let us assume that construct possessors too, in common with various conventional analyses of non-prepositional possessive structures of other kinds, occupy (whether or not following movement) likewise a high position; one, in particular, higher than the Spec,NumP site assumed by Ritter (1991). Suppose, in the case of languages with overt determiners, this position is immediately adjoined to the projection of D (its specifier in X'-terms). Borrowing from the spirit of Ritter (1987, 1988)'s intuitions concerning the featural content of D, let us suppose that D in construct possessive structures is specified for a possessive- or agreement-related feature and a definiteness feature. The former, if necessary, can be seen as attracting the possessor phrase to Spec,DP. This attraction, if necessary, occurs on merge of D, and precedes movement of the noun. Summarily, abstracting away from certain particulars and intervening projections, we are left with the following type of structure:

(74)



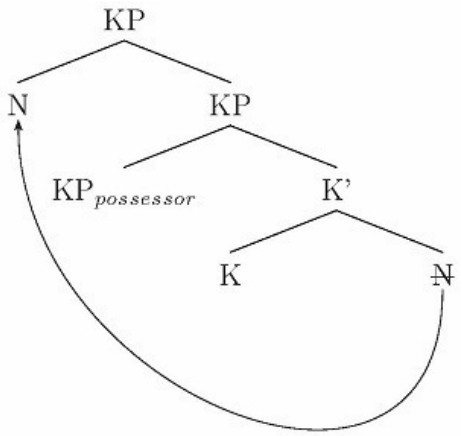
In non-construct structures, where no possessor phrase is immediately adjoined to the projection of D, N(P) merges in this position, and hence enters into a local relation with the determiner head. Take this for the moment to indicate a host-affix relationship (recall that all articles in the relevant Semitic languages are affixal specifically to the head noun).

By contrast, when a possessor phrase is merged immediately above D, movement of N necessarily crosses D and the possessor DP, and N lands in a higher position. Thus, the immediate local relation between N and D does not exist in this structure. Although technically still part of the extended nominal projection, perhaps even part of an outer projection of the category DP, the movement of N has failed to produce the normally existing structural locality or linearised contiguity between the

noun and D which would in non-CS derivations be expected in the relevant languages. Although we are dealing with quite a different context and type of movement, this is intuitively strikingly reminiscent of the stranding of a Case projection by Peeling. Note that the crucial feature of 'peeling' as a phenomenon is not its association with a particular driver of movement, or with Case projections as such. Rather, in both peeling accounts of movement and the type of DP-internal movement briefly sketched in this section, a subconstituent of the projection of a functional head which is normally affixal, is extracted, moves to a higher site across intervening material, and the stranded head fails to spell out as the usual affix in the absence of a linearly contiguous host.

For Akkadian, where the relevant category is case, we may posit roughly the same type of situation, but with regard to a K projection.[36] As before, the association of the possessor phrase with the functional head results in stranding of that head following noun-movement:

(75)



In what follows, we derive the loss phenomenon of the construct form in the greater complexity of the actual structures from the type of movement sketched in this section, followed by a failure of the stranded item to spell out.

In the context of the nanosyntactic theory of peeling in A-movement, that this failure to spell out is an option is not the standard assumption (Caha 2009a: 157ff.; cf. also Fábregas 2007); exhaustive spell-out of all nodes is expected by most variants of

[36] We schematise, in the rudimentary abstracted representation below, without a D projection. Nothing in our account rests on the absence of D per se in the Akkadian structure; however, the association of the possessor with the K projection (or some element thereof) is crucial. This arises most easily if the highest projections are different between the languages involved. Alternatively, perhaps the possessor phrase must associate with a head which is not covert, where D is always covert in Akkadian. We return below to the question of cooccurrence of D and K.

the theory (though some items may be phonologically null). Given the nature of the phenomenon, locating conclusive evidence of exceptions to the strict exhaustive spell-out is difficult. Equally, viewed from the opposite perspective, locating systematic evidence that spell-out via extraordinary mechanisms is the norm is far from clearly correct.[37] We maintain here that the stranded category will not spell out, due to its particular status as an affixal morpheme whose necessary host has failed to be (properly) associated with it. We refer to this treatment of affixal material in particular configurations established by (expanded) peeling-inspired movements as 'affixal ghosting'.

2.2.3.3.3 Stranding and Spellout: Evidence for Affixal Ghosting

In this subsection we briefly argue, on the basis of phenomena entirely independent of the construct phenomenon, that, once peeling-type stranding is admitted, a mechanism for non-spellout of certain stranded functional projections is motivated in other contexts.

Reminiscent of the peeling analysis of the passive and other case-related movements, but in the domain of A'-movement, are certain puzzling facts concerning the distribution for some English speakers of the wh-item *who* and its moribund non-nominative form *whom*.[38]

(76) a. Who did you go with?
b. Whom did you go with?
c. With whom did you go?
d. *With who did you go?

(77) a. You shouldn't care who I go with

[37] The nanosyntactic account of Peeling with strict lexicalisation makes use of a number of different strategies for explaining how the stranded projections are 'spelt out'; cf. Caha (2009a: 158ff.) for discussion. It seems, however, that the diverse spread of mechanisms required are rather too heterogenous to explain the regularities of such a pervasive set of operations as A-movement. Thus the option of failing to spell out in the absence of a host (rendering optional the various spellout mechanisms for stranded heads outlined by Caha, i.e. specific to the lexical inventory of particular languages, and leaving 'ghosting' the default) would seem to be preferable. The only (rather dubious) instances shown by Caha of the stranded head being spelt out by the *same* morpheme as in non-extraction contexts involve that morpheme affixing extraordinarily to another word-level host; i.e. it would appear, pending evidence to the contrary, that at best only if another host is available (a rare case) can the regular morpheme spell out when stranded; otherwise, it cannot be overt (for example by spelling out as a non-affix or a 'phrasal affix' to the intervening material).

[38] There seems to be considerable inter-speaker variation here; some speakers appear to lack the *whom* form entirely. The judgements given here hold good for the author and for other speakers consulted.

b. ?You shouldn't care whom I go with
c. ?You shouldn't care with whom I go
d. *You shouldn't care with who I go

(78) a. The friend who I went with.
b. The friend whom I went with.
c. The friend with whom I went.
d. *The friend with who I went.

(76)b-c are marked, high-register forms, but are available. Given that the case-marked form *whom* is marked and seems to be disappearing diachronically, the null hypothesis might be simply that two alternative lexical entities *who* exist for the relevant speakers, in register variation, one with marking for case and one without. This hypothesis founders upon the surprising fact shown by (76)d (even more unacceptable to most speakers in the embedded question and especially relative clause comparators in (77)d and (78)d): where the preposition is pied-piped in *wh*-movement (a marked structure, but still available for many speakers), the case morpheme must be spelt out on *who*. Under wh-movement, the sequence **with who* is barred despite the general dispreference for the cased form; a fact strikingly not predicted by a two-LI analysis.[39] These facts are borne out across *wh*-movement structures in English, as with the examples from embedded questions in (77) and relative clauses in (78).

If, however, the wh-movement in question peels a constituent subordinate to the Kase projection, (76)d is explained automatically: where only the wh-item itself is

[39] Andrw Radford (p.c.) suggests that the (d) examples could instead be explained by register mismatch: pied-piping of this sort is a feature of formal English, and *who* in non-nominative contexts is a feature of informal English. However, this explanation implies that the combination of pied-piping in *wh*-movement with any feature of informal-register syntax should result in ungrammaticality (not merely the impression on the part of speakers of a mild 'stylistic' mismatch). This turns out not to be the case: if we combine this pied-piping with another informal syntactic phenomenon such as singular agreement in expletive sentences like (ii)a. In a relative clause context we can of course strand P with *who* as in (ii)b. But singular agreement here is also compatible with pied-piping with *whom*, except at the level of mild incongruity of style; (ii)c, by contrast, pied-piping with *who* in (ii)d is outright ungrammatical for the author and for various other speakers consulted:

(ii) a. There's heaps of problems with the candidate.
b. The candidate who there's heaps of problems with.
c. The candidate with whom there's heaps of problems.
d. *The candidate with who there's heaps of problems.

The same facts are found for speakers of some non-standard Englishes which permit negative concord as a feature of the informal register. (iii)a likewise results for these speakers only in a consciousness of slight incongruity, whereas (iii)b is ungrammatical.

(iii) a. The friend with whom I never went nowhere.
b. *The friend with who I never went nowhere.

moved, the case morpheme will not appear on the moved *wh*-item. On the contrary, if the full PP is moved in pied-piping cases, it will necessarily include the Kase projection, necessitating spellout of the case morpheme as in (76)c.[40]

We cannot posit two separate lexical entries for stranded *with* in e.g. (76)a-b, one which includes the Kase feature (or, under nanosyntactic assumptions, the Accusative feature, or the Accusative and Nominative features together) and another which does not. Given that the accusative morpheme never spells out in the base position in examples like (76)a, we are forced to conclude that the Kase features (or nanosyntactically the Accusative feature, or the Accusative and Nominative features together) is not spelt out when the remainder of the projection beneath it is extracted. We can thus conclude that a parallel to the cases in the nanosyntactic theory of peeling in which a selector more or less plausibly lexicalises or subsumes the stranded feature is not available here.

The picture here is of course further complicated by the behaviour of *who* in echo-questions, which are not subject to wh-movement. Here, the suffixless form is licit throughout:

(79) You went with *who*?

This fact is naturally problematic for the above discussion. We might plausibly propose, however, that the structure of echo-*wh* items differs in one crucial feature from that of 'true' *wh*-items interpreted as interrogatives proper. Let us imagine that the *-m* accusative marker does not spell out the Case features alone, but also spells out a feature immediately subordinate to the Case projections, which encodes (true) '*wh*-ness' (call it Q-WH). This or a similar assumption would indeed probably be needed in some formulations of nanosyntactic spellout in order to lexicalise *-m* with an idiosyncratic form applicable only to this item. In the absence of the (true) *wh* feature

[40] Even if we were to adopt the nanosyntactic analysis of case proper, it seems *a priori* unlikely that a Nominative projection would subextract in the case of wh-movement, as nothing motivates its attraction in particular. As such it may well be that the extracted constituent is subordinate to all case projections, spelling out as a form without case morphology as such. For the purposes of the present discussion, nothing very much hinges on this question; although if correct, this might furnish a definite instance of peeling from beneath, rather than within, case projections. As such there may be some potential for formalising the marked form of movement differently in syntactic terms from the unmarked form: it may be that the former type of attraction targets [K [*wh* […]] in some sense, while the latter targets [*wh* […]]. Where P is pied-piped, even if it is the *wh* feature which is attracted, the entire constituent [P [K [*wh* […]]]] must move. Alternatively, attraction targets *wh* always, and two alternate forms of pied-piping are available in the form of K and P, although the latter option seems more difficult to formalise.

this marker will not be able to lexicalise the case features, as the lowest feature in its lexical representation is absent. In its absence, the case morphemes might be taken to spell out as null, as with most English nominals.[41]

One final fact which seems to speak against the interpretation of the facts given here is the behaviour of certain cases of multiple-*wh* questions in which an instance of *who*(*m*) is left *in situ* under a preposition. For most speakers with productive use of *whom* both the following are grammatical. This would seem to suggest that our proposal that *who*(*m*) should always spell out as *whom* for these speakers when not extracted from the PP is incorrect.

(80) a. Who went with who?
b. Who went with whom?

Under closer examination, however, the facts here are not so simple as to quite so straightfowardly negate our position. If we examine the behaviour of such multiple-*wh* structures where both instances are non-subjects (hence non-nominative), it turns out (at least for the author and others consulted) that the *wh*-item which remains in situ may fail to show the case morpheme only if the moved *wh*-item also does not show the case morpheme. If, on the other hand, the moved *wh*-item surfaces as *whom*, the *in situ wh*-item must do the same.

(81) a. Who did John assign to who?
b. Who did John assign to whom?
c. Whom did John assign to whom?
d. *Whom did John assign to who?

[41] The facts are not entirely simple even here, however, as *whom* is for some speakers licit here also (??"You went with *whom*?"), albeit for the author very marginal and even more marked than any of the wh-movement examples. This would seem at first sight to resurrect the two-LI view of *who* dismissed above in light of (76)d etc. On the other hand, an account might be possible given some nanosyntactic assumptions. Suppose that in fact, instead of two LIs *who*, the contemporary stage of the diachronic development involves two LIs *-m*, one spelling out something like [K [Q-WH [F-WH …]]], where Q-WH as above is the interrogative *wh*-feature and F-WH is some feature involved in defining a *wh*-item as such independently of the interrogative/wh-movement-related feature (perhaps a particular focus feature of some sort?); this participates in the very highly marked echo-question *whom*. Second, a restricted version spelling out only [K [Q-WH …]], as above ruling out its occurrence in echo-questions. If the former lexical specification is only marginally licit in the grammar of speakers such as myself, we have some direction towards an account of the divergence in acceptability between *-m* in the movement and non-movement cases. If the composition of something like [K [Q-WH ([F-WH])]] was by something like traditional head-movement for affixation (or a theoretical successor capturing the same data) a non-nanosyntactic account along the same lines is perhaps plausible.

(82) a. For whom did John book an appointment with whom?
b. *For whom did John book an appointment with who?

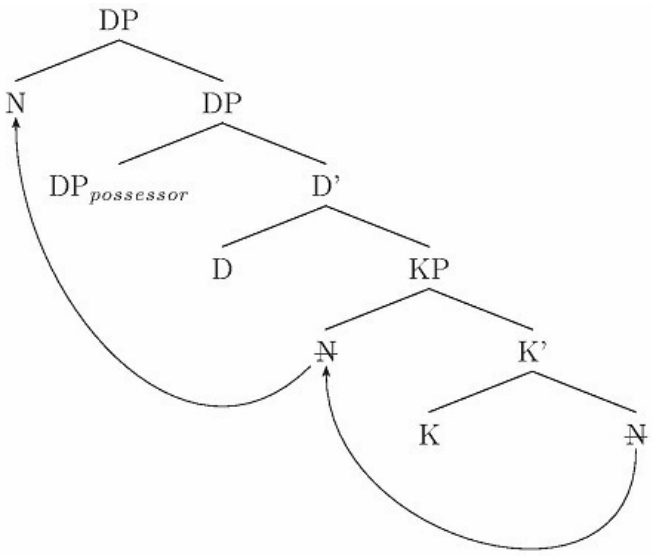
This parallelism effect seems to be able to override what is, in light of instances like (82)b, otherwise a reasonably robust requirement to spell out *-m* when not extracted from a PP.

2.2.3.3.4 Classical Arabic

Up to this point we have basically derived the effects formalised by Walter (2007) as identity-avoidance, but by other means. It remains, first of all, to deal with the case of Classical Arabic (which Walter did not formally account for, despite recognising its significance), which in the light of Akkadian is problematic for any account of the construct phenomenon; and then to show how certain broader properties of the construct phenomenon are accounted for under a version of our proposal. In this section we tackle the first of these issues.

In relation to Classical Arabic we envision the following type of derivation. Recall that in Classical Arabic, where both case and definiteness are overtly marked as affixal elements on the noun, affixal (in)definite articles are lost, but case-marking is unaffected in the CS form. We again leave aside for the moment the identity of the noun-containing constituent which moves; although this is shown as N it is almost certainly a projection such as NP or NumP; we come back to this matter later.

(83)



We assume that DP dominates KP which dominates NP (leaving aside possible intermediate projections above NP and other low material for the time being). We envisage that the nominal moves successively through the specifiers of higher projections; for example, into the specifer position of KP. However, in construct-state possessive structures, it cannot land in the (immediate, local) specifier of DP in Hebrew or Arabic, because this position is filled by the possessor. The nominal nonetheless continues the movement sequence by adjoining to the outer projection of DP. Thus in Classical Arabic, the nominal moves into the immediate specifier position of KP, but is precluded from moving into the immediate specifier position of DP, due to the presence of the possessor phrase. Thus Classical Arabic construct-state nouns bear case but cannot bear definiteness affixes. Akkadian, which has no overt determiners, arguably does not project a DP (or cannot associate a possessor phrase with covert D). The relevant nominal projection is therefore KP, in whose specifier the possessor phrase must merge. Thus movement to inner Spec,KP is impossible, contrary to the Hebrew/Arabic situation. The nominal thus moves instead to adjoin to the top of the nominal projection outside the possessor phrase, therefore failing to enter into a local relation with the K projection. The differential facts of stranding are therefore derived, including in the case where both relevant projections are demonstrably present.

2.2.3.3.5 Adjectives

In the previous sections we have, for simplicity, ignored the position of adjectives in the matrix nominal projection. Recall that, of course, adjectives modifying a noun in the construct state appear not in their normal position immediately postnominally, but following the possessor phrase (and its modifiers, if any); a common property of the construct-state construction across Semitic.

We may envisage that the lowest NP projection is dominated by AdjP in the presence of adjectives, perhaps by multiple differentiated adjectival projections (following e.g. Cinque 2010), with adjective phrases occuring in the specifier position of the projection. As the noun successively moves through various positions above AdjP, it will necessarily move across the adjective, and later the possessor DP, giving rise naturally to the required order: CS noun - Possessor - Possessor modifiers -

Matrix adjectives. The position and nesting of adjectives therefore falls out naturally from the same assumptions which we used to derive affixal ghosting.

2.2.3.3.6 Definiteness Inheritance

Thus far an issue which has not been dealt with is definiteness inheritance (and, as noted in section 2.3.1.4, the corresponding lack of 'case inheritance'). The proposals elaborated above do not obviously give us a mechanism for a unified analysis, although definiteness spread in Hebrew and Arabic may fall out relatively easily, agreement in definiteness between D and the possessor phrase in its Spec being a well-attested phenomenon even outside the construct-state structure.

One or two possible avenues can be mentioned here. Above, we have assumed that the D projection is absent in Akkadian. This is a necessary assumption if we site the possessor phrase in the highest functional projection of the nominal structure. However, we have also briefly mentioned the alternative logical possibility: that the D projection *is* present in Akkadian, but does not host the possessor phrase as it does in Hebrew and Arabic. We would thus need to explore the hypothesis that the possessor must obligatorily associate with a projection that may be overt in the language in question (or perhaps, one which may host some type of non-trivial variation in feature specification). The former option would be far from simple to define theoretically, for precisely the reasons explored here: these projections are *not* overt in the case of the CS derivations. Maintaining this state of affairs, note now that the possessor phrase will always be headed by D. Thus, where it is associated with the matrix D projection, two like features will come into a Spec-Head relation. This provides an initial environment in which definiteness 'spread' could take place, as noted above. On the contrary, in Akkadian, the corresponding structural relation will be between K and the possessor DP, whose features are unlike.

Alternatively, rejecting the notion that the D projection is relevant in Akkadian, and adopting the notion that Kase is not a unitary but a layered projection, the possessor phrase will always be headed by the genitive-related feature. This will only sometimes be true of the case-projection layer of the matrix nominal projection. Taking the possessor phrase to be located in the specifier of the highest such projection, the constituents will be like only in the case that the CSDP is itself genitive, in which case 'inheritance' could in principle hold, albeit trivially.

Elsewhere, the ‘genitive’-headed possessor phrase associates with an ‘accusative’ or ‘nominative’-related functional head. We require here the assumption that although case is decomposed, definiteness is unitary. Again, dealing with the implications is far from straightforward, in particular the matter of blocking movement through the lower but not the highest projections in the presence of more complex case-layers in the matrix projection. Given that we have not explicitly adopted the decomposition of Kase projections here, and an alternative explanation is available, we leave the formalisation of this option aside here.

2.2.3.3.7 Case Preservation

One issue which remains in the Akkadian construct is the preservation of case-marking in the Akkadian masculine plural forms. Recall that no comparator exists to this phenomenon in the Semitic languages with overt determiners: these determiners are invariant morphemes, and are blocked from appearing without exception in association with the construct state forms.

As already noted, a straightforward surface explanation of the exceptionality of the masculine plural suffixes is obvious: they appear to be atomic morphemes spelling out number and case inseparably. This receives further support from the fact that they are blocked entirely for CHRC heads, which, as we argued in the previous chapter, are radically caseless. It remains to make explicit why this blocking will not be the case for conventional construct state nouns.

There is clearly some mechanism by which a derivation can be ‘salvaged’ in instances where the only spellout items available for the gender/number morphology of the construct-state noun also spell out case. This appears necessarily to be a process associated with spellout: one can only determine that case-marking is preserved in the masculine plural forms *and those forms only* if one knows the shape or at least the structure of the surface morphemes. Since spellout plausibly interrogates lower copies in chains, or chains as a whole, in some way (most simply, to determine which copy to pronounce), it makes sense that in this extraordinary instance a special transfer/insertion of the case feature could take place, inherited, perhaps, from lower copies in the extended structure, in the possessive construct construction – but not in CHRCs, where no relation to an extended nominal projection holds. In any case, it is clear from the contrast between CSDPs and CHRC heads that the presence versus

absence respectively of an extended nominal structure determines the availability of this 'repair', which, regardless of the exact means of its operation, is a divergence easily expected to be possible given this analysis. If it can be maintained, as we suggest in the immediately following section, that under our analysis of the derivation of CSDPs the apparent CS-complex 'licensing' relation is in some sense secondary and not a necessary underpinning of most properties of the construction, it may be that this repair involves a last-resort unpicking, or lack of phonological formation, of the close relation between the construct-state noun and the possessor. It is notable in this connection, though quite possibly coincidental, that in Akkadian the masculine plural forms are the only forms of the construct state which are not distinguishable from the corresponding forms of the SR, and thus correspond to nominal forms which can be realised 'freestanding' anywhere.

2.2.3.3.8 The CS Complex

Under 'ordinary' circumstances, case-marking and determiners which are typically overt (respectively in the relevant languages) cannot be null; in Akkadian, lack of suffixal case-marking is generally unavailable to nouns outside the construct-state structures in the great majority of environments. This is essentially the surface implication that has been a substantial factor in leading some to see an extraordinary kind of licensing of a noun or reduced nominal structure in the construct state environment (so, for example, for Borer 1996's "incorporation" account of Hebrew CSDPs, the construct complex exemplifies some kind of process "licensing a non-maximal Ex[tended]P[rojection]"). Our account of CSDPs (unlike our account of CHRCs) does not *require* the assumption of a non-standard means of licensing for the construct-state head noun. However, there is, of course, a well-known phonological cohesion involved in the construct state across languages. There is some evidence for this even in Akkadian: for example, the (generally cluster-resolving) *-i* morpheme in some Akkadian construct state forms does not occur outside the construct state (at least in the Babylonian varieties of Akkadian), whereas the feminine *-at* resolving clusters of the type -C*t* where *-t* is the feminine singular morpheme has attestation in other environments which do not seem to involve the kind of phonological 'contiguity' attested in the CS complex cross-linguistically, suggesting that this type

of phonological resolution occurs only in the environment of a close phonological relation to the following word.

This seems to suggest that our analysis has not captured everything about the syntax of the construct complex: 'removing' case (or determiners), no matter how many features of the construction any such analysis explains, is not quite enough. We must also account for the presence of a close relation of some kind between the construct-state noun and the possessor.

Note that in the structure we have proposed for the derivation of CSDPs, the final landing site of the construct-state noun produces a structure resembling a multiple-Spec configuration. As is well-known, configurations in which clear cases of multiple specifiers surface as overt material are at best very rare across languages. One serious possibility, therefore, is that the 'incorporation' or 'quasi-affixation' of the construct-state noun to the possessor phrase reflects a mechanism which serves to disambiguate the structure of such configurations by adapting them (perhaps as part of the spell-out process) into a phonological unit which makes clear their structural relation. This, of course, will only be possible where the extended projection of the outer element is not full. While this is somewhat speculative without further elaboration which would be beyond our scope here, it falls out rather naturally from our analysis, and explains the environment of the construct phenomenon with some exactness, but also suggests that, as a reflex of a rather special conjunction of properties in a grammar, the construct phenomenon will be – as seems to be the case – restricted to a rather limited range of language types.

2.2.4 Conclusion

In this chapter we have investigated the DP-internal construct-state construction in Old Babylonian Akkadian and certain other Semitic languages. We have explored the difficulties which a cross-linguistic examination including Akkadian raises for most existing accounts of the construct phenomenon in the generative literature. In light of these investigations, we have proposed an analysis which predicts the majority of the most significant syntactic properties of this construction, and in particular accounts for both the structural commonalities and corresponding surface variances between Akkadian and other Semitic languages, which prior accounts do not appear able to explain. We have not yet dealt with the rather significant question of the exact 'size'

and internal structure of the N-containing constituent which constitutes the raised CS head ‘noun’ in this analysis. Since this matter can best be viewed from a standpoint which takes into account the variations among the variety of reduced nominal structures discussed throughout this thesis, we postpone further discussion of this particular question to our overall conclusions in chapter 4.

3 The Stative

3.0 Introduction

We now turn to the phenomenon generally, though not exclusively, known in the Assyriological literature as the *stative*,[1] a cover term for a special morphological paradigm which may be applied to noun and adjective stems as well as to certain forms derived (in a sense which is controversial) from verbs, and some associated syntactic facts. As we noted in the introduction, the stative has been examined descriptively with a much closer and more sustained interest than any of the other phenomena dealt with here, though only partly in a frame which overlaps in a significantly direct way with the concerns of this thesis. Owing to the vigorous debate which the stative has produced in the Assyriological literature, which in its terms renders contestible virtually every set of minimal theoretical concepts which could be employed in a thorough introductory description of the phenomenon, an entirely uncontroversial outline of what the stative 'is' with which to ground and from which to begin our more specific exploration is not easy to set forward. For that reason this orientating section will be kept brief, limited as far as possible to completely clear surface description, and the more detailed facts of the stative phenomenon brought out in subsequent sections partly in an overview of these controversies.

Virtually the only general statements concerning the 'nature' of the stative which could be said to be for the most part entirely uncontroversial are the following: syntactically it is a marker of some particular kind of predication; morphologically, it is associated with a (wholly or partially) unique suffixal paradigm (some of which – the extent being a subject of debate – is null). Even the term 'suffixal' oversteps, formally speaking, the bounds of the uncontroversial, the nature of these apparent 'suffixes' having been directly implicated in one of the main lines of debate. The association of these inflections or pseudo-inflections with a specific morphosyntactic category or categories has been fiercely debated; likewise the syntactic and semantic

[1] An older term which long coexisted with 'stative' is 'permansive'. The latter has since fallen into general disuse in favour of 'stative' (and other innovative terms and analyses to be discussed below). Rowton (1962) is the last major example of its use in the specialised literature; Buccellati (1968, 1988) retains the term alongside 'stative', in a narrower sense referring only to the morphological aspects of the phenomenon. The use of the term permansive in the earlier literature usually reflected an intuitive semantic association of the stative with present-perfect type tenses in languages such as English; on this see Ungnad (1918) and Rowton (1962: 224-5, 239 (with comments on the former), 243; Rowton's more significant arguments in this connection will be briefly noted below in another context). The stative went by a number of other designations in the earliest work on Akkadian, for example Hincks' "continuative [tense]" (Hincks 1855: 161-2 [paginated in error 161 followed by 262]).

nature of the form of 'predication' involved. This is before we even begin to involve the generative perspective in these problems.

3.0.1 The 'stative' paradigm

The stative is associated with a distinct suffixal paradigm, which is either wholly or largely unique (depending on the position adopted relative to analytical controversies we have yet to touch on). This paradigm reflects the full normal complement of ϕ-features (number, gender and person) in agreeing with clausal subject. The basic stative paradigm of core OB is given in (1).[2]

(1)

	Sing.	Pl.
3-masc.	-[ø]	*-ū*
3-fem.	*-at*	*-ā*
2-masc.	*-āta (-āti)*	*-ātunu*
2-fem.	*-āti*	*-ātina*
1	*-āku*	*-ānu*

3.0.2 Syntactic preliminaries

These suffixes may attach to a variety of elements, to be defined in following sections. Before passing on to the discussion of individual stative 'types' we may make a few general remarks which apply to all statives, regardless of all other distinctions. These suffixes are attached directly to the stem of the base to which they attach, without intervening morphemes of any kind. The word or stem to which the above suffixes are attached is uniformly, without exception, the lexical head of the predicate of the clause. Furthermore, in terms of word order, stative predicates (in common with finite verbal predicates) are uniformly final in their clause.

3.0.3 The stative and nominal predication

It is appropriate in the context of this study to begin with the application of the stative suffixes, first of all, to nouns proper. As noted, the stative suffixes attach directly to the noun stem. In this case, the meaning is equivalent to that of a copular clause with a predicate noun interpreted (in the vast majority of cases at least) as an indefinite:

[2] For a more detailed presentation including variations across Akkadian dialects, see von Soden (1952/1995: 121-2/§75a-c).

(2) *awīl-um* *šū* *šarrāq* *i-d-dâk*
man-NOM.SG that.MASC.NOM thief[STAT.SBJ:3ms] SBJ:3-PASS-kill.PRES[SBJ:SG]
"That man is a thief, he will be killed."
Codex Hammurabi §7 (col. vi), ll. 55-56.

(3) *{maḫar}* *{āl-(im)}* *u* *šīb-ūt-im*
{presence(CSTR)} {town-(GEN.SG)} and witness-MASC.PL-GEN
šarrāq-āku *i-qbi*
thief-STAT.SBJ:1sg SBJ:3-speak.PRET[SBJ:SG]
"In front of the town and witnesses he said, 'I am a thief'."
UCP 10/1: no. 107, ll. 8-9 (Lutz 1931).

(4) *šumma* *awīl-um* *aššat-am* *ī-ḫuz-ma*
if man-NOM.SG wife-FEM.SG-NOM SBJ:3-take.PRET[SBJ:SG]-CONJ
riks-āt-ī-ša *lā* *i-škun*
agreement-FEM.PL-ACC/GEN-POSS:3fs NEG SBJ:3-put.PRET[SBJ:SG]
{sinniš-(t-um)} *šī* *ul* ***aššat***
{woman-(FEM.SG-NOM)} that.FEM NEG **wife-STAT.SBJ:3fs**
"If a man took a wife and did not put in place her agreements, that woman is not a wife."
Codex Hammurabi §128 (col. xxviii/r.v), ll. 35-41.

(5) [*kīma?*] *ab-ī* *īd-û* ***muškēn-ēku***
[as?] father-POSS:1sg [SBJ:3].know-SBJV ***muškēnum*-STAT.SBJ:1sg**
ab-ī *ina* *nīt-im* *ša* *āl-im*
father-POSS:1sg in encirclement-GEN.SG ŠA city-GEN.SG
l-ī-ṭer-anni *lā* *u-dabbab-ū-ninni*
PREC-SBJ:3-remove.PRET[SBJ:sg]-ACC.1sg NEG.PREC SBJ:3-discuss.Dstem-SBJ:3mpl-ACC.1sg
"[As?] my father knows, I am a commoner.[3] May my father spare me from the 'encirclement' of the city, so they will not keep on at me."
AbB 14: no. 91, ll. 35-37 (Veenhof 2005).

(6) *awīl-t-um* *muškēn-et*
(free)man-FEM.SG-NOM *muškēnum*-STAT.SBJ:3fs
"The lady is a commoner."
AbB 6: no. 148, l. 11 (Frankena 1974).

(7) *šumma* *atḫ-ānu* *ittī-ya* *ul* *ta-mtalliq*
if partners[pl.tant.]-STAT.SBJ:1pl with-1sg NEG SBJ:2-confer.PRES[SBJ:SG]
"If we are partners, will you not discuss (it) with me?"
AbB 10: no. 188, ll. 10'-11' (Kraus 1985).

(8) *umma* *šunū-ma* *rēd-ênu* *l-i-dbub-ma*
QUOT they.MASC-PTCL soldier-STAT.SBJ:1pl PREC-SBJ:3-discuss[SBJ:sg]-CONJ
"They said, 'We are soldiers, he ought to negotiate, [and …]'".
AbB 7: no. 125, l. 17 (Kraus 1977).

[3] *muškēn-um*, member of a specific social class of intermediate status between *awīlum* '(free) man' and *wardum* 'slave'.

(9) *bēl-ī* *dayyān-āti* *itti* *{Sîn}-iddinam*
master-POSS:1sg judge-STAT.SBJ:2sg with PN
dīn-ī *dīn*
judgement-POSS:1sg judge.IMPV[SBJ:2ms]
"My master, you are a judge, judge my case together with Sîn-iddinam!"
AbB 1: no. 34, ll. 24-25 (Kraus 1964).

The stative is not, however, the only strategy for the predication of nouns. In the second, which we may call null-copular, the predicate nominal appears not in the stative form but in the 'state' appropriate to its constituent-internal syntactic relations (i.e. SR except in cases where the construct state applies). Such predicates show normal nominal morphology and internal syntax; they typically agree with the subject in number and gender, but this agreement is shown in terms of the normal nominal morphology rather than a special set of morphemes. Person is not marked in any form, either 'on the predicate' or by any independent copula- or agreement-like element. Subject and predicate are both marked for nominative case where such marking may appear.

(10) *lā* *te-ggi* *u* ***awīl-um*** ***atta***
NEG[.IMPV] SBJ:2-be_lazy[SBJ:Msg] and man-NOM.SG you.MASC.SG.NOM
šumma *šapār-am* *lā* *te-le"i*
if instruction-ACC.SG NEG SBJ:2-be_able.PRES[SBJ:Msg]
"Don't be lazy, and you're a man, if you're not up to the task, tell me!"
Kienast (1978: no. 156, ll. 15-19)

(11) *awīl-um* *ša* *tuppa-šu* *u-š-ābil-ak-kum*
man-NOM.SG ŠA tablet-POSS:3ms SBJ:3-CAUS-bring.PRET[SBJ:SG]-VENT-DAT.2ms
sūt-um
Sutean-NOM.SG
"The man who had his tablet brought to you is a Sutean."
AbB 6: no. 140 (Frankena 1974).

(12) *šumma* *dīn-um* *šū* *dīn* *napišt-um*
if judgement-NOM.SG that.MASC.SG.NOM judgement[CSTR.SG] life-NOM.SG
"If that case is a capital case […]" (lit. "a case of life")
Codex Hammurabi §3 (col. v), ll. 64-65.

(13) *[a]wīl-um* *šū* *aḫ-ī*
man-NOM.SG that.MASC.SG.NOM brother-POSS:1sg
"That man is my brother."
AbB 1: no. 119, l. 7 (Kraus 1964).

A noun which appears in a stative form is obligatorily simple in a radical sense. It shows no case-marking morphology in any form. Depending on one's position on certain questions to be considered later, there may in addition be no expression of

number or gender in terms of the nominal itself; uncontroversially, no nominal number or gender morphology appears in the context of the first and second person forms. Noun statives never show nominal modifiers or subconstituents of any kind (including adjectives, demonstratives, relative clauses, possessors, or subordinate PPs). Furthermore the emphatic (and perhaps in the context of non-stative nonverbal predication structures predicate-marking) suffix/clitic *-ma* may not be suffixed to statives.[4]

Conversely, noun predicates not in the stative may be heads of fully complex nominal phrases (as in (14)-(15)); furthermore, unlike statives, the predicate noun is not necessarily (part of) the final word-level element in the clause. This can be shown for the head noun of the predicate by any such examples; that clause-final order is not obligatory in the case of a non-stative predicate nominal by those with pronominal subjects (see (10) above).

(14) *[šu]mma* *awīl-ū* *šunu* *ward-ū* *ša*
if man-MASC.PL.NOM those.MASC.NOM slave-MASC.PL.NOM ŠA
{nadi-(āt)} *{Šamaš}* *[an]a*
{female_devotee-FEM.PL(CSTR)} PN to
bēl-ēt-ī-šunu *l-i-tūrr-ū*
master-FEM.PL-ACC/GEN-POSS:3mpl PREC-SBJ:3-return-SBJ:Mpl
"If those men are slaves of the devotees of Šamaš, let them return to their mistresses!"
AbB 1: no. 115, ll. 8'-9' (Kraus 1964).

(15) *Hammurapi* *bāni* *māt-im* *{šarr-(um)}* *ša*
PN builder[CSTR.SG] country-GEN.SG {king-(NOM.SG)} ŠA
epš-āt-ū-šu *ana* *šīr* *{Šamaš}* *u* *Marduk*
deed-FEM.PL-NOM-POSS:3ms to body[CSTR] PN and PN
ṭāb-ā *anāku*
(become_)pleasant-STAT.SBJ:3mpl I.NOM
"I am Hammurapi, the builder of the country, the king whose deeds are pleasing to Šamaš and Marduk."
RIME 4: Hammurabi E4.3.6.12, ll. 25-30 (Frayne 1990: 348).

The stative is, however, a much more involved phenomenon than a strategy only for the predication of nouns. Indeed, 'noun statives' are the least frequent category of an initial intuitive division amongst 'types' of statives we can immediately set up which is (at least) tripartite. Despite this, it is in the case of the noun stative that the *prima facie* similarities of the stative to the other phenomena

[4] Though diagnosing this situation is somewhat complicated by the fact that statives can and do appear with the suffixal or clitic conjunction *-ma*.

examined in this study may be seen most clearly: as we saw with CHRCs in chapter 1 (though, anticipating later discussion, not identically on an underlying level), the noun stative must (in the sense, at least, of *nominal* structure) be structurally impoverished to a very great degree, being devoid of case-marking and unable to support any modifier, possessive constituent, etc.[5] The noun stative may also be, depending on the position adopted relative to the question of the morphology of third-person statives, devoid of nominal-type number and even gender features.

3.0.4 Adjectival statives

The stative of adjectives likewise serves as a form of predication. There are, however, distinct complexities here in defining 'adjectival stative' which do not apply to the stative of nouns. In the briefest terms, anticipating later discussion, the great majority of common adjectives are related in terms both of their consonantal roots and typical vowelling patterns to verbs, with semantic correspondences between verb and adjective which in most cases are more or less predictable. In light of this fact, great controversy has surrounded the question of whether statives which appear to be derived from such adjectives are in fact built from adjectival stems or are instead of 'verbal' derivation.

Nonetheless, adjectives without direct relation to verbs are certainly known. In the cases both of (possibly) verb-derived adjectives to be discussed shortly and of adjectives without relation to verbs, the stative is the normal, and almost certainly the obligatory,[6] strategy of the predication of adjectives in OB (though not in later dialects). Some examples of clearly non-verbal adjectival statives are given below.

(16) *kurb-ī-m* *šalm-āku-ma* *ann-ûm*
pray.IMPV-SBJ:F-DAT.1sg (become_)healthy-STAT.SBJ:1sg-CONJ this-MASC.NOM.SG
lū ***kayyān***
PREC constant/regular[STAT.SBJ:3ms]
"Pray for me, may I be healthy, may this be constant!"[7]
AbB 7: no. 5, ll. 17-18 (Kraus 1977).

[5] There exists one partial exception to this statement, which, although rare in the data, is of significant importance to the examination of the stative of nouns. Little has been made of this fact in the existing literature; discussion is thus postponed to the more substantial examination of section 3.1.4.4 below).
[6] There are some possible nuances to this statement, which will be discussed in section 3.1.3 below.
[7] The exact contextual interpretation of this example, which closes a letter, is somewhat uncertain, principally because the referent of *annûm* is unclear. It might perhaps refer *in toto* to some instructions/suggestions made earlier in the text, or perhaps could mean "let us keep in touch", or could refer to the expected recovery of the author, who seems to report an illness in an earlier, fragmentary part of the text. The linguistic interpretation is in any case not affected.

(17) [{*a*]*m-(t-um)*} *lū* *kayyān-at-ma*
{female_slave-(FEM.SG-NOM)} PREC constant/regular-STAT.SBJ:3fs-CONJ
bil-t-um *lū* *kayyān-at*
burden-FEM.SG-NOM PREC constant/regular-STAT.SBJ:3fs
"Let the slave-woman be constant(ly available), and let the burden be constant."
AbB 14: no. 25, ll. 24-25 (Veenhof 2005).

(18) *{dal-(t-um)}* ***lū*** ***birūy-at*** *mādiš* *lā*
{door-(FEM.SG-NOM)} PREC medium_sized-STAT.SBJ:3fs much-ADV NEG.PREC
i-qattin *u* *lā* *i-kabbir*
SBJ:3-become_thin.PRES[SBJ:sg] and NEG.PREC SBJ:3-become_thick.PRES[SBJ:sg]
[...] *{dal-(t-um)}* *lū* *dummuq-at*
{door-(FEM.SG-NOM)} PREC (become)_good.FACT-STAT.SBJ:3fs
lū ***birūy-at***
PREC medium_sized-STAT.SBJ:3fs
"Let the door be medium-sized: let it not become thinner by much or become thicker […] Let the door be improved, let it be medium-sized."
AbB 3: 34, ll. 28-29 + 42-44 (Frankena 1968).

(19) *ṣibt-um* *mād*
seizure-NOM.SG much[STAT.SBJ:3ms]
"Seizure is rampant."
AbB 2: no. 148, l. 14 (Frankena 1966).

(20) *kal-û-ma* *ers-û*
everything-NOM-EMPH ready-STAT.SBJ:3mpl[8]
"*Everything* is ready."
AbB 14: no. 60, l. 14 (Veenhof 2005).

(21) *kīma* *šam-û* *u* *erṣ-et-*[*um*] *dār-û*
as heaven-MASC.PL.NOM and earth-FEM.SG-[NOM] eternal-STAT.SBJ:3mpl
bēl-ni *aššumī-ni* *l*[*ū*] [*d*]*āri*
master-POSS:1pl because_of-1pl PREC eternal[STAT.SBJ:3ms]
"As the heavens and the earth are eternal, may our master be eternal for our sakes!"
AbB 7: no. 84, ll.7-8 (Kraus 1977).

(22) *it-ât-ī-ni* *i-k<ta>ms-ū* *wēd-ēnu*
neighbour-FEM.PL-ACC/GEN-POSS:1pl SBJ:3-<PERF>gather-SBJ:Mpl alone-STAT.SBJ:1pl
"They have gathered up our neighbours, we are alone."
AbB 7: no. 84, l 11' (Kraus 1977).

(23) *ištu* *ṣeḫḫer-ēku*
since (very_)small-STAT.SBJ:1sg
"Since I was very young, […]"
AbB 3: no. 16+17, l. 13 (Kraus 1968).

[8] Since the final vowel of the stem of this adjective appears to be *u*, and the number of the subject is in this case ambiguous, this could be a singular stative with the zero suffix of the masculine singular. The writing appears to indicate a long vowel, hence a plural, but not with absolute certainty.

3.0.5 The verbal (adjective) stative

The majority of instances of the stative are built on a stem of the form CaC(V)C, where V is usually (obligatorily for most roots) *i*. This is also the vowelling pattern typical of a form known in the literature as the *verbal adjective* of the G-stem (the basic form of the verb), which occurs as an adjective proper with (usually) more or less predictable semantic correspondences with the related verb. Less often, statives of 'derived' forms of the verb appear, likewise corresponding in form to the relevant verbal adjectives. The great majority of these statives are synchronically and more or less productively related to verbs. The relation of the verbal adjective to the stative, and the issue of whether some or all of these 'verbal' statives are or are not in fact predications of verbal adjectives, has been a highly controversial subject. The relevant aspects of this issue will be taken up in greater detail below. For the time being we will give a very brief overview of the most common types of these 'verbal statives' (a term I will adopt here for convenience, despite the occasional fuzziness of the distinctions it creates, and without implying a position on their status).

Most statives related to transitive verbs have a passive meaning and take the logical object as their syntactic subject. The stative ascribes the result of the action to the logical object, roughly on a semantic continuum with a passive 'present perfect', with an emphasis on resultant state:[9]

(24) *umma* *ḫabt-āku* *ī-sī-ma*
QUOT abduct-STAT.SBJ:1sg SBJ:3-moan.PRET[SBJ:sg]-CONJ
"He moaned, 'I am abducted!'"
Sigrist (1990: no. 89, ll. 4-5)

[9] Rowton (1962: 281-3) argues that the 'passive' G-stem stative of transitives has displaced in function the relatively uncommon N-stem perfect ((*i*)-*t-ta-pras* < ^(*i*)-*n-ta-pras*), in cases where the latter stem serves as a passive relative to the G-stem. Rowton's OB letter examples of passive statives on this point, however, with the exceptions of his nos. 391 and 395, certainly do not appear to be "rather heavily slanted towards action rather than state" as he claims. I assume, *contra* Rowton, that the distributional facts arising from this semantic overlap have no special status, at least in OB, and may be subsumed under the general stative vs. tensed-verb distinction (doubtless slightly more complex in this instance than a mere state/result vs. process/event distinction, but the possible subtleties need not concern us for the time being). On this point see particularly the occasional but rather decisive parallel cooccurrence of N-stem perfect and G-stem stative in an example such as the following:

(i) *{nā[r} ... broken]* *kal-û-ša* *i-t-te-ḫre*
{canal} [.....] all-NOM-POSS:3fs SBJ:3-PASS-PERF-dig[SBJ:SG]
{nā[r} ... broken] *{Uruk}* *ul* *ḫeri-at-ma*
{canal} [.....] PlN NEG dig-STAT.SBJ:3fs-CONJ
"All of the […] canal has been dug; the canal […] of/in Uruk is not dug, [and …]."
AbB 2: no. 5, ll. 3-4 (Frankena 1966).

(25) *{alp-(ū)}-šu* *paṭr-ū*
{oxen}-M.PL.NOM-POSS:3ms release-STAT.SBJ:3mpl
"His oxen are unyoked."
AbB 14: no. 59, l. 10 (Veenhof 2005)

(26) *ṭupp-um* *seḫt-um* *ša* *i-ʾli-am*
tablet-NOM.SG erroneous-NOM.SG ŠA SBJ:3-arise.PRET[SBJ:SG]-VENT
ḫepi
break[STAT.SBJ:3ms]
"The erroneous tablet that turned up is (now) broken."
Al-Rawi and Dalley (2000: no. 26, ll. 13-15)

(27) *bubū-t-um* *ina* *muhh-ī-ya* *kamr-at*
starvation-FEM.SG-NOM in top-GEN-POSS:1sg pile_up-STAT.SBJ:3fs
"Starvation is piled on top of me."
AbB 14: no. 37, l. 19 (Veenhof 2005)

Intransitive verbs are for the most part rather uncommon as statives; telic, mostly unaccusative, motion verbs have a reasonable attestation; an example is given in (28).

(28) *šumma* [*{elep}*] *ša* [X] *{elep}* *ša* [Y]
if [{boat([CSTR.SG])}] of [X] {boat([CSTR.SG])} of [Y]
i-mḫaṣ-ma *u-ṭ-ṭebbi*
SBJ:3-strike.PRET[SBJ:SG]-CONJ SBJ:3-PASS-sink.PRET.CAUS[SBJ:SG]
bēl *{elepp-(im)}* *ša* *{elepp(a)}-šu* *ṭebi-at*
owner[CSTR.SG] {boat-(GEN.SG)} ŠA {boat}-POSS:3ms sink-STAT.SBJ:3fs
"If a [boat] [of X type] struck a boat [of Y type], and it is caused to sink, the boat-owner whose boat is sunk […]"
Codex Hammurabi §240 (col. xliii/r.xx), ll. 67-72.

A large category of statives, and one with certain special morphological properties which will be discussed later, are related to so-called 'adjectival verbs', whose G-stem has an inchoative/change-of-state interpretation. The verbal adjectives, and statives, related to these verbs usually express pure state.

(29) *alāk-ī* *qerub*
go.INF-POSS:1sg (become_)near[STAT.SBJ:3ms]
"My going is near."
AbB 14: no. 34, l. 11 (Veenhof 2005).

(30) *ilik-šu* *šalim*
service-POSS:3ms (become_)healthy[STAT.SBJ:3ms]
"His service(-record) is in good order (lit. healthy)."
AbB 14: no. 36, l. 8 (Veenhof 2005).

(31) *šalm-āku* *mimma* *lā* *ta-nazziq-ī*
(become_)healthy-STAT.SBJ:1sg anything NEG SBJ:2-worry.PRES-SBJ:2f
"I am healthy, do not worry about anything."
Al-Rawi and Dalley (2000: no. 93, l. 5).

(32) *lū* *šalm-āta* *lū* *balṭ-āta*
PREC (become_)healthy-STAT.SBJ:2ms PREC (be/come_)alive-STAT.SBJ:2ms
"May you be healthy, may you remain alive."
AbB 14: no. 50, l. 5 (Veenhof 2005).

(33) *Ayya-tillatī* *marṣ-at-ma*
PN (become_)ill-STAT.SBJ:3fs-CONJ
"Ayya-tillatī is ill, [and …]"
AbB 14: no. 25, ll. 26-27 (Veenhof 2005).

A final category of 'verbal' statives is that generally known in the literature as the 'active stative'; the so-called active stative has usually been treated as a separate category in the literature, in some cases as an entirely separate phenomenon despite its surface similarities with other statives. The active stative can be defined as a stative related to a transitive verb which, instead of taking the logical object as subject of the stative, is not passive and retains an accusative-marked direct object. The active stative is frequent only with a small number of verbs (but is by no means restricted to these); the four which make up the great majority of examples of the 'active stative' are exemplified as statives in (35)-(38) below. None of these verbs are transitives in the strongest sense, i.e. verbs with volitional agentive subjects and affected patient objects. (34) shows *maḫārum* 'receive', the first of these verbs, in a simple finite verbal form with the same argument structure. It is to be further noted that at least some of these verbs may also be passive in the stative; (39) shows this for *ṣabātum*, whose active stative is exemplified in (36).

(34) {1/2 ma-na KÙ.BABBAR} {*itti*} *Manniya* *ipṭer*
{half mina silver} {with} PN ransom[CSTR.SG]
mār-ī-šu *i-mḫur*
son-GEN-POSS:3ms SBJ:3-receive.PRET[SBJ:SG]
"He received half a mina of silver from Manniya as his son's ransom."
Al-Rawi and Dalley (2000: no. 95, ll. 6-7).

(35) *uzubbī-ša* *maḫr-at*
divorce_payment-POSS:3fs receive.STAT-SBJ:3fs
"She is in receipt of her divorce payment."
VAB 5: 7, l. 4. (Schorr 1913)

(36) *ana* *pān-ī-ka* *ṭēm-ī* *ṣabt-āku*
to front-GEN-POSS:2ms plan-POSS:1sg sieze-STAT.SBJ:1sg
u *kal-û-ma* *ers-û*
and everything-NOM-EMPH ready-STAT.SBJ:3mpl
"I have gone about my plan on your behalf, and *everything* is ready."
AbB 14: no. 60, ll. 13-14 (Veenhof 2005).

(37) *aḫḫ-ī* *{Sîn}-rīm-{Ur-(im)}* *ša*
brother-MASC.PL.ACC/GEN PN ŠA
{alp-(ī)}-ka *našû* *šāt-qātim*
{ox}-MASC.PL.ACC/GEN-POSS:2ms bear-STAT.SBJ:3mpl handcuffs
i-mḫaṣ-ū-ma
SBJ:3-strike-SBJ:3mpl-CONJ
"They put Sîn-rīm-Urim's brothers, who were in possession of your oxen, in handcuffs."
AbB 14: no. 55, ll. 22-23 (Veenhof 2005).

(38) *iballuṭ* *u* *erištum* *tēniq-šu* *gamr-am*
PN and PN suckling_fee[MASC.SG]-POSS:3ms complete[MASC]-ACC
leq-û *libba-šunu* *ṭāb*
take-STAT.SBJ:3mpl heart-POSS:3mpl (become_)pleasant[STAT.SBJ:3ms]
"Iballuṭ and Erištum have taken the complete suckling fee for him. They are pleased ['their heart is pleasant']."
Al-Rawi and Dalley (2000: no. 25, ll. 6-8)

(39) *awīl-um* *ša* *ḫulq-um* *ina* *qāt-ī-šu*
man-NOM.SG ŠA lost_thing-NOM.SG in hand-GEN-POSS:3ms
ṣabt-u
sieze.STAT.SBJ:3ms-SBJV
"The man from whose possession the lost thing has been siezed […]"
Codex Hammurabi §9 (col. vii), ll. 6-8.

It should be noted incidentally that these 'active statives' should be distinguished from another minor category which have accusative-marked objects, namely passive statives in which, although promoting the underlying object, which is accusative-marked in its relation to the corresponding finite active transitive, to a nominative-marked subject, an accusative-marked argument may nonetheless appear with a restricted set of verbs, in the specific case of verbs which govern two accusative-marked constituents in the active. Of these multiple accusative-marked arguments, the one which remains accusative-marked in clause with a stative predicate is consistently that which is not the logical direct object:

(40) *kīma* *ṣubāt-am* *lā* *labš-āku* *ul* *t-īde*
that garment-ACC.SG NEG dress-STAT.SBJ:1sg NEG SBJ:2-know[SBJ:SG]
"Don't you know that I am not dressed in (any) clothes?"
AbB 14: no. 138, ll. 6-8 (Veenhof 2005).

3.1 Assyriological Views of the Stative

3.1.1 Statives as Verbal

For most of the history of Assyriology the stative has been more or less consensually regarded as (in some syntactic or 'categorial' sense) analogous to finite verbs (a view which goes back at least to Hincks 1855, who took the stative, as did much subsequent work, to be "a tense"). This view persists in the highly influential grammar of von Soden (1952/1995), in which the stative is regarded as clearly aligned with finite verbal forms. von Soden's highest-level syntactic categorisation of main clauses knows only two major categories: nominal sentences (conceived as all those without a finite verb as predicate) and verbal sentences (those with a finite verbal predicate, which "can also be a noun[10] conjugated in the stative" ("den Verbalsatz mit einer finiten Verbalform als Prädikat […], die auch ein im Stativ konjugiertes Nomen […] sein kann"), von Soden 1952/1995: 223/$125a).[11]

For von Soden, the first and second person stative suffixes (but not the third person forms) are suffixal nominative pronouns, occurring only as an element of the stative (von Soden 1952/1995: 53/§42b), but for von Soden somehow analagous to the suffixal genitive pronouns (attaching to nouns, some prepositions, and a few other miscellaneous elements) and suffixal accusative and dative pronouns (occurring on finite verbal forms). von Soden's own analysis of the morphology of the stative thus succumbs to a certain amount of confusion: while partially anticipating the 'predicative state' analysis of Buccellati (examined in 3.1.2 below), it does not pursue the uniformity attempted by Buccellati's proposals, and remains puzzlingly intermediate between the (already ill-defined) 'verbal' and 'nominal' views of the stative.

The third person masc. sg. has "no ending at all, like the absolute state of nouns […] The endings of the fem. [sg.] and of the pl. of the third person are those of the adjective without case endings and without the *-t* in the plural", while the first and second person forms are "shortened forms of the freestanding personal pronouns joined with a connecting vowel *-ā-*" (von Soden 1952/1995: 121/§75a) – in other

[10] "Nomen" in the sense of the intuitive common class subsuming both nouns in more conventional terms and adjectives.
[11] For further references to summary descriptions of the stative in this vein across the older descriptive literature see Buccellati (1968: 1, nn. 1-2).

words, little more than a surface description of the suffixal forms, together with a very confused analysis of the morphological nature of the 'base' of the stative.

It is to be noted that, with the exception of the inconclusive discussion of statives by Kraus (1984), no extended study of the stative has hitherto restricted itself to OB data, certainly not to what I have called Core OB; nor has any carefully segmented the OB data from that of other varieties. So Rowton (1962) studies "Classic Babylonian" (meaning Old Babylonian in the wide sense together with Middle and Standard Babylonian, with occasional Neo-Babylonian data as well; OA is briefly discussed separately); Kouwenberg (2000, 2010) discusses mainly OB and SB together with Old Assyrian data. In the case of Standard Babylonian, and perhaps Old Assyrian,[12] there is probably little substantive difference in the distribution of the stative with OB; it is nonetheless worthwhile to point out this divergence between the present discussion and most of those cited below.

Rowton (1962) provides the last major instance, and by far the most extensive example of, a study of the stative in the frame of the older tradition of 'verbal' interpretations of the stative. To Rowton the permansive-stative is still a "tense"[13] in some undefined sense. The terms in which the stative is descriptively designated a "tense", a categorisation which is extremely common in the literature up to this point, seem to bring together various semantic-contextual analyses of the usage of the stative (see Rowton 1962: 234-8; cf. fn. 14 below) and structural notions (the complementary distribution of the stative with, as well as word-order similarities with, the three traditional finite "tenses", a.k.a. "prefix-conjugations", i.e. those verb forms whose subject-agreement morphology includes prefixal morphemes, unlike the subject-agreement of the stative). Nonetheless Rowton recognises the difficulty of assimilating all adjectival (and by implication noun) statives into this view ("it should be noted that when the permansive is purely stative in function, namely in the adjectival verbs, it is not a genuine tense of the verb, it really belongs with the

[12] As starting points for non-specialists interested in the question of subtle interdialectal variation in the syntax of statives, as yet not closely studied, SB data occurs *passim* in virtually every existing study. A modest amount of usefully presented OA data on 'verbal' statives is given by Rowton (1962: 285-8); further OA material is quoted sporadically throughout Kouwenberg (2000), and OA citations are included in his list of noun stative references (2000: 43-8), admixed with but distinguished from Babylonian data. To my knowledge other later dialects have not benefited from such collections of data on any substantial scale.

[13] "No tense of the indicative can be adequately discussed [in semantic terms] without including in the discussion all four indicative tenses" [i.e. 'preterite', 'present', 'perfect' and stative] (Rowton 1962: 238, cf. 299).

adjective", (Rowton 1962: 299), being "a verbal adjective in predicative form", *id.* 236). One of the great deficiencies of the traditional descriptive view of the stative may be seen in the ill-defined notion here termed "genuine tense of the verb" and the resulting paradoxical analysis which assigns 'statives' derived, on the one hand, from 'genuine verbs', and those derived, on the other, from root adjectives and nouns, together with, in some versions of this view, those related to 'adjectival verbs' – all of which types are in nearly all respects identical in surface terms of morphology and syntax (though of course interpretationally at some variance) – to entirely different syntactic categories even in their 'use' as 'statives'.

Rowton's idiosyncratic and detailed subclassification of uses of the stative is based on semantic categories, mixing together rather dubious semantic-contextual notions, e.g. the "permansive of control" and the "permansive of persistency" of the active stative,[14] with rather more exactly conceived cateogries such as the "passive permansive", conceived as all those in which the logical object of a related transitive verb appears as syntactic subject of a stative.

Rowton's summary view is that the "single basic feature […] which would clearly distinguish the use of the suffix conjugation [= stative] from the prefix conjugation" is that "[t]he permansive speaks either of absence of change (state) or lack of change (aspect of action)"; in the case of process/event verbs, the distinction between prefixed verbal forms and the stative is summarised as "whether the speaker

[14] The perils of attempting such an intuitive/contextual analysis of stative use are amply illustrated through Rowton's paper. For example, of the most common lexical items involved in the 'active stative', Rowton's analysis has to resort to arbitrarily specifying the extent to which individual lexical items in the (morphological-syntactic) stative form are (semantic) "permansives" or have acquired the semantic status of "an ordinary tense", and, what is more, as *different* (semantically conceived) 'tenses' (Rowton 1962: 233-4; briefly, *mahir* and *naši* (stative forms of 'receive' and 'bear/carry' respectively) are considered to have 'tense' status, the former as a 'perfect' and the latter as a 'present'; whereas *leqi* (stat. of 'take') is seen not to have such properties, despite being largely interchangeable in context with *maḫar*). The arguments here are, besides being largely irrelevant to the present discussion, very much arguable and impressionistic. Likewise of very dubious value are some of the syntactic-discourse classifications whose elaboration dominates parts of Rowton's later discussion, such as the special classification awarded to 'paratactic' uses (in which a stative predicate is followed by the suffixal/clitic sequentialising conjunction *-ma* and another main clause with, usually, a non-stative verbal predicate denoting (expected or unexpected) action resulting from or more or less closely connected with the situation described by first clause), which clearly have no special status either in relation to the stative or in relation to the typical discourse use of the *-ma* in Babylonian, as Rowton himself comes very close to admitting in his discussion (Rowton 1962: 271-2, 277-8, cf. 294 col. ii); the semantic-discourse properties of *-ma* in such contexts have provoked repeated debate; cf. recently Cohen 2005: 160-179 on *-ma* in both stative and non-stative cases. Cohen proposes a uniform interpretation of the first clause as a conditional, which is, however, contradicted for statives by many of the clearly non-conditional examples cited by Rowton (1962: 271-8). A resurrection of Rowton-like micro-semantic analysis of the verbal stative is offered by Loesov (2012), who in syntactic terms assumes basically the views of Kouwenberg (2000; cf. section 3.1.3 below).

is sensitive to the factor of change". The stative thus encodes "situation"[15] as opposed to "change" (Rowton 1962: 288-291).

There is a clearly unresolved tension in this discussion (as in von Soden 1952/1995) between the notion of the stative as "finite" or even "tensed" (and in wider terms its close interrelation with 'verbal' syntax) on the one hand, and the unambiguously nominal and adjectival status as lexical items of some statives on the other. It is to the dramatic resolution of this problem that the next major syntactic reanalysis of the stative in the Assyriological literature applied itself.

3.1.2 Statives as Nominal

Drawing on an older and not particularly influential tradition of regarding the stative as built, either synchronically or diachronically, on a nominal '*status indeterminatus*', and by recent morphological proposals that the stative was built on a unique 'predicative state', Buccellati (1968) reinterpreted the synchronic status[16] of the stative as being strictly a special syntactic form of the predication of nominal categories, "completely different in structure and function" from the 'verbal tenses' proper.

As will have been obvious from the preceding section, Rowton's manner of inquiry into the use of the stative (and most significant previous examples of the then consensual 'verbal' perspective) gave high weight to intuitive fine-grained semantic analysis. A further and radical departure of Buccellati's approach was the advancement of a view of the distribution of the stative as determined solely by synctactic conditions. Briefly stated, Buccellati's 'predicative state' is a special morphological state of nominals similar in character to the construct state in the sense that it is a syntactically and morphologically 'reduced', and associated strictly with a particular syntactic context which alone determines and restricts its occurrence.

[15] More specifically in relation to active statives and passive statives of telic verbs "it speaks of state or situation of the subject which is the result of action. […] Reference is throughout to action and its effect, in other words action viewed in conjunction with its effect as an aspect of action lacking fientic change." (Rowton 1962: 298); in verbal statives as a whole it "usually speaks, neither of state alone nor of action alone, but of both" (*id.* 235). Elsewhere the stative is characterised as "speak[ing] of simple state in neuter verbs, of state as the outcome of past action in verbs of action, and also of the subject as engrossed in action" (*id.* 234).

[16] Though note that the study freely mixes a wide range of Akkadian varieties in its data. These are mostly SB and late dialects, with little notice given to OB data.

One of the most striking aspects of Buccellati's original analysis is the proposal of a strict complementary distribution between the following two syntactically defined classes of nominal predicates:

a) those without modifiers or other complex nominal structure and not marked by *-ma* (appearing in the 'predicative state')
b) those with any sort of complex structure and/or marked by *-ma* (in the SR)

The requirement of noun statives to be simplex indeed holds (thus, by implication, a predicate noun with nominal-type modifiers, etc., *must* appear in the nominative-marked SR). However, as was quickly noted in subsequent discussions of Buccellati's analysis, this proposal of strict complementary distribution can be easily falsified by many examples in the sense that many SR-marked noun predicates without modifiers or (overt) complex structure beyond the word-level are of not infrequent occurrence; cf. e.g. (10)-(11) above.[17] We will return to the question of 'complementarity' later.

First noting the apparent implausibility of a "denominative tense" (in other words, the stative as 'conjugated nominal' and 'tense' simultaneously) rather than fully fledged denominal verbs, as the product of a conventional verbalisation process, Buccellati goes on to diagnose on three main criteria that the stative construction has no 'verbal' characteristics at all. One of these arguments, the proposal of complementary distribution of simplex and complex predicate nominals, we have already dealt with.

The second concerns the distribution of specifically 'verb-related' morphemes, in particular the so-called ventive suffixal morpheme. The distribution of the ventive is more or less free with non-stative tensed verbal forms, with a number of allomorphs appearing in differing phonological contexts. By contrast, most forms of the verbal stative do not appear with the ventive suffix, even where their phonological shape would seem to suggest they might. However, the ventive *can* appear (rarely and usually in literary texts) on the third person forms except the feminine singular, when the relevant 'verbal adjective' is clearly of verbal 'derivation' (though see shortly

[17] Buccellati does discuss a number of apparent counterexamples, mostly from late dialects and mostly explained away on the basis of orthographical peculiarities in these periods, as representing the productions of non-native speaking areas, and so on (1968: 8-10). No cases from core OB are included.

below); if the ventive is characteristic of verbs, and the 'verbal stative' is fully speaking a predication of the adjective, not a form of the verb in any morphological or syntactic sense, it remains unclear in Buccellati's proposal why this should be so. Conversely (an important aspect of Buccellati's argument), the ventive is not attested on any of the first and second person suffixes (^ *-ākū-nim*, etc.) nor on statives of nouns (so e.g. ^ *šarrāq-am* in cases similar to (2)):

This leads Buccellati to conclude, against all previous analyses of the dominant tradition, that "when the pronominal elements are present [i.e. in the first and second person forms] they do not serve as mere personal markers [i.e. agreement morphemes] but retain fully their pronominal nature", preventing the affixation of a "true verbal ending" in the form of the ventive; the supposed fact that only verbally-derived adjectives may take the ventive morpheme in any stative form shows for Buccellati that "the so-called stative conjugation does not of itself make a verb out of a noun" (1968: 3-4). However, in Buccellati's view, the third person forms as a whole are not 'pronominal' but reflect nominal morphology.

It should be noted here, however, that while the ventive suffix does not seem to occur with noun statives (a fact which it might be possible to reduce to semantic incompatibility), it *does* rarely occur with statives of clearly non-verbal adjectives in combination with dative pronouns, contradicting Buccellati's claim that the ventive occurs only with "the third person of statives derived from verbal adjectives". The 'function' of the ventive here, if any, is obscure, but the attestation of variations like that in (41) as against (42), where the dative suffix occurs alone in the first case and preceded by the ventive in the second, seems to suggest it was not vacuous.

(41) *{il}-šu* *ana* *damiq-t-im*
{god}-POSS:3ms to good-FEM.SG-GEN
kayyān-šum
constant/regular[STAT.SBJ:3ms]-DAT.3ms
"His god will be constant for him, to (his) benefit."
Köcher and Oppenheim (1957-8: p. 65, l. 22).

(42) *ištu* *a-llik-am* *{ṣāb-(um)}*
since SBJ:1sg-go.PRET-VENT {personnel-(MASC.SG[!])}
mīṣ-am-ma *ṭēm-ī* *ul*
(become_)few.STAT[SBJ:3ms]-VENT-CONJ news-POSS:1sg NEG
kayyān-ak-kum
constant/regular[STAT.SBJ:3ms]-VENT-DAT.2ms
"Since I came, the personnel[18] are few, and (so) my news is not regular for you."
AbB 1: no. 37, ll. 13'-14' (Kraus 1964).

The third and probably most influential argument adduced for the 'nominal sentence' view of the stative concerns similarities of form between some of the stative affixes and the independent nominative pronouns. It will be worthwhile here to repeat here the paradigm of the stative suffixes of core OB alongside the nominative personal pronouns of corresponding ϕ-features (given in the usual ordering in work on Semitic languages, starting with third person forms):

(43)		SG		PL	
		Stative affix	Pronoun	Stative affix	Pronoun
	3M	[zero]	*šū*	*-ū*	*šunu*
	3F	*-at*	*šī*	*-ā*	*šina*
	2M	*-āta*	*atta*	*-ātunu*	*attunu*
	2F	*-āti*	*atti*	*-ātina*	*attina*
	1	*-āku*	*anāku*	*-ānu*	*nīnu*

It will be immediately seen that the final CV(CV) sequences of the first and second person suffixes bear strong similarities with the pronominal forms, less the initial VC/CV sequence of the latter (though there is no visible similarity at all in the third person forms). There has always been an effective consensus that these similarities betoken at least a historical cognacy of some kind between these forms.

Latching onto the clear inconsistency of the notion of the stative suffixes as 'suffixal nominative pronouns' nonetheless (and unlike the language's suffixal accusative, dative and genitive pronouns) functioning as mere subject-agreement morphemes (see von Soden quoted above in 3.1.1, and Buccellati 1968: 2, n. 5), Buccellati takes the consistent application of this notion through its logical development of assigning these morphemes the unambigous status of pronouns, in other words, in our terms, elements capable of functioning as arguments, independently referential, etc. Thus for Buccellati the stative affixes are subject

[18] Treated as a singular here despite the explicit plural-marking sign in the logogram; the variability of number agreement and the treatment of the singular as a 'plural' are both known phenomena for this word.

pronouns proper, which happen to be affixes. These affixal pronouns are fully speaking the subjects of clauses containing a stative; the "bound form" of the nominal into which the stative 'stem' has been reanalysed is (alone) the clausal predicate. Despite the fact that he continues to consider the stative so reanalysed as a {noun|adjective}-pronoun sequence a properly word-level entity, Buccellati, in contrast to the 'verbal' tradition, views the stative thus "rather as a syntactical than as a morphological unit."[19]

We may note some important related facts at this stage. Akkadian is prodrop both for subjects and for pronominal objects (which are suffixal). This being the case, it is difficult to see how one can maintain a view in which the stative suffixes are not expressive of subject-agreement but instead constitute pronouns in their own right, yet are (exceptionally, relative to all other instances of nominative pronouns in Akkadian and to all instances of 'clitic doubling'-like cases of accusative and dative suffixal pronouns) uniformly obligatory as overt elements.

The apparent divergence between Buccellati's 'suffixal nominative pronouns' and all other subject pronouns in OB is further brought to light by two interrelated facts. First, statives can and do co-occur with emphatic independent nominative pronouns of the non-affixal kind as listed above, including the first and second person pronouns:[20]

[19] This could be framed in generative terms as 'composed as the result of a syntactic derivation' as opposed to a (lexicalist) view of inflected verbal forms as built 'in the lexicon' and inserted (whether featurally or 'fully') whole into the derivation. These conceptual forms are, naturally, not to be found in the Assyriological discussions, but are a rather close fit in this particular case. There is, of course, a third possibility that is obvious in this context, which is alien to the Assyriological discussions and to which we shall return to in a later section.

[20] Buccellati (1968: 6) briefly dismisses the significance of the occurrence of independent nominative pronouns with the stative as 'anticipatory emphasis', i.e. something like a hanging topic. This seems, to say the least, dubious, especially given the rarity if not complete lack of this use of solitary pronouns in other contexts. Huehnergard (1986: 229) adopts a similar but stronger, and still less plausible, view, that even noun-phrase subjects of statives (as in (2), (4), etc.) are, like pronoun subjects of statives, "*casus pendens*" topics, the true syntactic subject of being the 'suffixal pronoun' of Buccellati's analysis; so *awīlum šū šarrāq* in (2) is analysed as "that man, he is a thief". Huehnergard's version appears to be falsified by the apparent lack, to my knowledge, of non-stative noun predicates with both preceding ('topic') and following ('subject') pronominal subjects, i.e. something along the lines of [*atta awīlum atta*] corresponding to (10) above (this contrasts with a fairly substantial, though still uncommon, set of examples with a non-pronominal 'hanging topic' and a pronominal subject (of the type *PN* [predicate] *šū* 'PN, he is X'); the data is summarised by Huehnergard 1986: 235-6, with fn. 68). The possibility of such apparently non-attested 'double pronoun' examples of non-stative predication appears to be predicted by Huehnergard's strict analogy between stative 'suffixal subjects' and pronominal subjects of SR-type noun/noun-phrase predicates, which uniformly follow the predicate (unlike non-pronominal subjects), a proposal which goes somewhat further than Buccellati's.

(44) *atta* *lū* *palḫ-ātā-ma*
you.M.SG.NOM PREC fear-STAT.SBJ:2ms-CONJ
"You ought to be afraid, [and …]"
AbB 3: no. 52, l. 24 (Frankena 1968).

(45) *u* *anāku* *lemn-iš* *epš-ēku*
and I.NOM bad-ADV do-STAT.SBJ:1sg
"And I am badly treated."
AbB 1: no. 67, ll. 4-5 (Kraus 1964).

(46) *šumma* *{awīl-(um)}* [X] *i-šām-ma* *nādinān-am*
if {man-(NOM.SG)} [X] SBJ:3-buy.PRET[SBJ:sg]-CONJ seller-ACC.SG
lā *u-kīn* ***šū-ma*** ***šarrāq***
NEG SBJ:3-(become_)firm.FACT[SBJ:sg] he-EMPH thief[STAT.SBJ:3ms]
"If a man bought [X] and did not make clear [the identity of] the seller, *he* is a thief."
LE §40 [A iii 28-29 / B iii 12-13] (Yaron 1988: 66).

Second, note that in the above examples (and all other such examples known to me from core OB), the overt freestanding nominative pronoun precedes the stative predicate. Pronoun subjects of noun statives are rare, but also have this order, for which see (46). This is also the order for overt nominative pronouns with 'finite verbs' in the narrow sense:

(47) *anāku* *{am-(t)}-am* *a-ddin*
I.NOM {female_slave-(FEM.SG)}-ACC SBJ:1sg-give.PRET
"*I* gave the slave-girl."
AbB 14: no. 226, ll. 5-6 (Veenhof 2005).

Contrasting with this is the normal order of SR-type nominal predication structure with pronominal subjects. Where such structures have non-pronominal subjects the typical order is, like the above, subject-predicate (cf. (11)); however, where the subject is an overt pronoun, the order is [predicate phrase]-pronoun (cf. (10) above and (48)).[21]

[21] For a discussion of this point with reference to the Assyriological literature on the subject see Huehnergard (1986: 224-7). There are a few exceptions, mostly in the context of subordinate clauses and precatives/optatives; for representative data cf. Kraus (1984: 28-9).

(48) *aššum* *{i}l-um* *unnēn-ī-kunu*
because {god}-NOM.SG petition-MASC.PL.ACC/GEN-POSS:2mpl
i-lq-û-ma ***awīl-ū*** ***attunū-ma***
SBJ:3-take.PRET-SBJ:MPL-CONJ (free_)man-MASC.PL.NOM you.M.PL.NOM-CONJ
raši-ātunu
acquire-STAT.SBJ:2mpl
"Because the god received your petitions, and you are freemen, and you are propertied[22] […]"
AbB 3: no. 52, ll. 19-20 (Frankena 1968).

The "fully nominal" perspective on the stative has become, in one form or another, increasingly influential; indeed, it has recently been advanced as a consensus view, without qualification, in various introductory and reference works oriented to a non-specialist audience.[23]

This 'verbless' or 'nominal' analysis of the stative has subsequently been refined in various ways. Buccellati (1988) makes one major alteration, in abandoning Buccellati (1968)'s version of the alleged complementary distribution between 'simple' noun statives and 'complex' noun-headed predicates in the SR (or construct state). As we saw above, this strict hypothesis can be clearly falsified. Buccellati (1988) proposes instead a complementary distribution between the noun stative as the form of predication of 'simple' *indefinite* nouns, whereas non-stative predicates are either (a) definite, (b) phrasally complex, or both. Buccellati (1996: 353-4) goes further in claiming that stative- and SR-type noun predicates are "structurally identical" "in terms of deep structure" (not quite in the various formal senses of the term in the generative tradition, but in practice in such a closely related sense that we may take it as such; cf. Buccellati 1996: 340-343), there being some kind of process (by implication akin to transformational relations between 'deep structure' and other levels of representation in the relevant generative work; cf. Buccellati 1996: 415-417), whose nature is not expanded upon, which determines the surface appearance of the stative in cases of simplex indefinite nouns and the SR/CS in the cases of definites and/or complex noun phrases.

This latter version of complementary distribution of stative/non-stative noun predication incorporating the notion of definiteness is, naturally, much harder to

[22] This assumes, following roughly the interpretation of Frankena (1968: 41) as well as CAD R 197 s.v. *rašû* A 2 d, that *rašiātunu* is a non-passive verbal stative without explicit object ("you have acquired", i.e. "you have come into property"). This use appears rather rare, and the interpretation is somewhat forced. It is perhaps possible that this is in fact a noun stative of the (itself rare) lexicalised sense of the derived agentive noun *rāšûm* (< ^*rāši-um*), 'propertied/rich person'.
[23] See, for example, the influential textbook of Huehnergard (2000: 219-223, 393-5) and Woodard (ed. 2004: 245-6).

diagnose in the data with certainty, as Akkadian knows no overt morphosyntactic marking of definiteness. It is, however, certainly much closer to the tendency in the data, though it does seem to be open to clear exceptions such as (10) and (48). We will return to the details of this issue and to some objections to Buccellati's second proposal of complementary distribution later.

Huehnergard (1986), largely following Buccellati's analysis, strips it of the distinction between the third person stative forms (taken by Buccellati to be nominal affixes marking number and gender) and the first and second person forms (taken to be pronominal); Huehnergard regards the complete stative 'paradigm' as presented above as a series of affixal[24] pronouns (cf. footnote 20 above).

Huehnergard's main argument for this position is the apparent lack of 'existential' noun statives (as opposed to those with referential subjects), while SR-type noun predicates may, where there is no overt subject, produce such interpretations.

(49) *kīma* *t-īd-û* *ebūr-um*
as SBJ:2-know-SBJV harvest-NOM.SG
"As you know, it is harvest-time."
AbB 7: no. 110, l. 8 (Kraus 1977).

(50) *kīma* *t-īd-û* *kuṣṣ-ū*
as SBJ:2-know-SBJV cold(_weather)-MASC.PL.NOM
"As you know, it is winter."
AbB 1: no. 142, l. 14 (Kraus 1964).

(51) *u* *kīma* *te-š<ten>emme* *nukur-t-um-ma*
and as SBJ:2-<ITER>hear.PRES[SBJ:sg] hostility-FEM.SG-NOM-CONJ
mamman *bāb-am* *ul* *u-ṣṣi*
anyone gate-ACC.SG NEG SBJ:3-go_out.PRES[SBJ:sg]
"And as you keep hearing, there is war, and no one is going out of the gate."
AbB 6: no. 64, ll. 15-17 (Frankena 1974).

(52) {1 ŠE GUR} *šuāti* *liqi* *ṣupū-ma*
{1 barley 'kor'[measure]} that.ACC take.IMPV[SBJ:sg] soak.IMPV-CONJ
lū *usā-t-um*
PREC assistance-FEM.SG-NOM
"Take that one *kor* of barley, soak (it). Let there be assistance!"
AbB 1: no. 8, ll. 19-20 (Kraus 1964).

This divergence Huehnergard derives from Buccellati's notion that the first and second person stative suffixes are properly referential pronouns, necessarily

[24] Huehnergard appears to use indiscriminately the terms 'suffixal' and 'enclitic' to describe the stative morphemes; no distinction seems to be intended.

expanding this concept into the third person forms as well. While Huehnergard is apparently correct that there are no existential noun statives,[25] there *are* clear cases of third person singular non-referential subjects of 'verbal' statives of passive-like meaning:

(53) *ina* *{ṭupp-(i)}* *{ekall-(im)}* *kīam* *šaṭer*
in {tablet-(CSTR)} {palace-(GEN.SG)} thus write.STAT[SBJ:3ms]
{kaparr-(ī)} *šunūti* *kīma* *ina*
{shepherd-PL(.ACC/GEN)} those.MASC.ACC as in
{ṭupp-(i)} *{ekall-(im)}* *šaṭr-u* *apul-šunūti*
{tablet-(CSTR)} {palace-(GEN.SG)} write.STAT[SBJ:3ms]-SBJV answer.IMPV[SBJ:2sg]-ACC.3mpl

[Following a list of people and assignments to be given to them]
"On the palace tablet it is written thus. Replace those shepherds for them, as it is written on the palace tablet."
AbB 14: no. 1, ll. 34-47 (Veenhof 2005).

Since this would seem to rule out Huehnergard's argument for verbal statives, we would be left with an analytically unpleasant idiosyncrasy of noun statives (a distinction which Huehnergard (1987) explicitly denies).[26]

Despite largely supporting Buccellati (1968)'s conception of the stative, Huehnergard also rejects the (original version of) Buccellati's complementary distribution in favour of a loose distinction of 'markedness', amounting virtually to no syntactic or semantic distinction at all (Huehnergard 1986: 233), save some remarks on the possible use of one form or the other for the avoidance of ambiguity in context as to the identity of the predicate.

Huehnergard (1987), discussing mainly the 'active stative' (which Buccellati's original analysis had largely ignored), takes to its logical conclusion the notion that all 'verbal' statives other than that type are predications of the relevant verbal adjective. Active statives corresponding to transitive verbs are exceptions in that the corresponding verbal adjectives consistently have a passive interpretation.

From this Huehnergard concludes that while all non-'active' statives are simple predications of adjectives, the active stative is an 'analogical' extension to the relevant verbs of a (semantically) 'stative' or "non-fientic" counterpart to the relevant verbs, unrelated synchronically (or, in fact, diachronically in these cases) to an

[25] For one possible exception see (60) quoted in section 3.1.3 below; its interpretation as an existential is, however, extremely uncertain.
[26] For further remarks on another direction for explaining the apparent anomaly, see under the discussion of Kouwenberg (2000) below.

adjective. There is thus (distinguishing them from all other statives in this view) "no nonpredicative form to which they may be said to correspond." One must agree with Huehnergard that Buccellati's thoroughly non-verbal analysis of other statives effectively forces this conclusion. This thus leads Huehnergard to conclude that the stative phenomenon as a whole consists of two entirely distinct types of 'stem' which are identical in form, one that of the verbal adjective, the other an identical stem solely derived from verbs participating in the so-called active stative which "has no morphological reality (synchronically or diachronically speaking) apart from this construction", and an identical set of suffixes (for Huehnergard independently referential pronouns) applying to both.[27]

Another issue is the ability of some statives (especially, but not exclusively, the third person masculine singular form) to take certain suffixes otherwise unique to verbal forms; these include accusative and dative pronominal suffixes, the ventive, and the 'subjunctive'. Buccellati, in a formulation which was already problematic, had attempted to explain away these third-person cases by means of his distinction, already discussed, between the third-person and non-third-person stative forms; the third-person form just mentioned was considered sufficiently 'bare' to accomodate these suffixes, whereas the forms with suffixal subject pronouns blocked their appearance. As we have seen, Huehnergard's version of the analysis knows no such distinction. This leads Huehnergard into some awkward and rather contradictory formulations on the mixed 'nominal' and 'verbal' nature of the stative: "That predicative adjectives may function verbally on the syntactic level, when they appear with the ventive or subjunctive morpheme, or dative or (adverbial) accusative complements, does not mean that such forms are finite verbs or that the clauses in which they appear are verbal". These quasi-verbal properties are "undoubtedly due to a synchronically perceived semantic relationship between the two groups of forms", i.e. 'statives' and 'verbs' proper (Huehnergard 1987: 231, 227).

Just as one can identify a clear tension in the dominant traditional quasi-verbal view of the stative, between its clear partial affiliation to the predication of nominals

[27] Buccellati (1988) rejects Huehnergard's analysis of the active stative, assuming that it too is a predication of the verbal adjective with special, lexicalised meaning peculiar to the relevant stative predicates. This is essentially nothing more than a restatement of the problem. Buccellati (1996: 410) adopts a slightly different position, terming the active stative a 'pseudo-transitive', i.e. actually an intransitive stative with something like an 'accusative of respect', which is explicitly "not a direct object". The exact correspondence of these accusative forms to the logical object of the corresponding verb thus remains unexplained in this version, which is perhaps even less satisfying.

and the desire to classify its syntax and, in some cases, its semantics as 'verbal', one can identify a clear tension in the fully developed 'nominal' analysis of the stative whose detailed pursuit was inaugurated by Buccellati (1968), in this case between the nominal-predication aspect of the phenomenon and the inability either synchronically or diachronically to fully distinguish it morphologically or syntactically from the semantics and argument structure of some verbs and the syntax of clauses with verbal predicates, on which more immediately below. This tension is perhaps best exemplified by Huehnergard's innovative term for the 'active stative', i.e. to him the only form showing the 'stative' morphology which is not related to a noun or adjective: *pseudo-verb*.

3.1.3 The Stative as Syntactically Verbal (but Lexically Variable)

A contrary trend to the 'nominal' syntactic analysis of the stative can be traced first to Kraus (1984), which, despite being inconclusive as regards the syntactic status of the stative and substantially concerned with other issues, is a starting point for a minority view in the modern literature on the stative which maintains, in one form or another, the primacy of the 'verbal' properties of the phenomenon, while diverging from the earlier literature in assigning it a rather more complex status than that of an inflectional form of the verb which, for reasons unelaborated, happens to be able to 'conjugate nouns'. Much of Kraus's discussion is taken up by a detailed subclassification of non-stative, null-copular predication, and with various criticisms of the studies of Rowton and Buccellati, primarily for their more or less undistinguished admixing of data of very wide temporal dispersion, as well as on much more detailed points regarding the interpretation of individual examples which need not detain us here. Kraus's substantive arguments against Buccellati's nominal analysis are basically limited to the invariability of the stem for (nominal) number and gender marking (at least in the non-third-person forms), as well as the regular occurrence of statives with overt pronominal subjects (distinct from the stative suffixes), although Kraus remains ambivalent in his analysis of both of these facts.

For Kraus, essentially, statives related to 'adjectival verbs' (*Zustandsverben*) are, descriptively, to be designated predicates of a 'nominal sentence', statives related to other verbs predicates of 'verbal sentences'. This formulation, which is somewhat confused and is not accompanied by explicit characterisations of syntactic properties,

seems to stand out as the earliest version of a view of the stative as a unified 'verb'-like phenomenon with multiple kinds of lexical sources; implicitly, the source of 'verbal statives' proper is, in some undefined sense, 'the verb'; that of statives related to adjectival verbs as well as those unrelated directly to verbs is the adjective or noun. It is to be noted that Kraus rejects Buccellati's *syntactic* nominal analysis explicitly for all statives; Kraus's notion of some statives as predicates of 'nominal sentences' is more or less based on the lexical and semantic categorisation of the stative 'head'. Kraus's diachronic concept of the development of the stative is diametrically opposite to that of Buccellati and other proponents of the 'nominal' group of analyses: it was first a form of the verb "without specification of Aktionsart", spreading via the medium of 'adjectival verbs' to adjectives proper, finally and very secondarily to nouns; for Kraus, this more or less also explicitly establishes a synchronic primacy of the verbal 'source'. Kraus's major objection to Buccellati's primacy of nominal stems as stative predicates is that these are relatively infrequent compared to those identifiable with verbs.

This general line of thought has been pursued in detail, and more significantly 'syntactisised', principally by Kouwenberg (2000, 2010: 161-193). For Kouwenberg, the stative has its historical origin in nominal predication, but synchronically is uniformly a "finite verbal form". We will first briefly review the major points in the structure of Kouwenberg's argument, then move on to some important matters of detail.

For Kouwenberg, it is only semantically that the stative seems to have properties prototypically divergent from those of verbal predicates: it is unspecified for tense; it is expressive of state rather than event or process. Morphologically, Kouwenberg rejects one of the two major arguments in favour of the 'nominal' analysis as irrelevant to synchronic categorial status. On the side of the nominal analysis, many if not most statives are built on more or less clearly 'nominal' stems; further, there is a clear resemblance between the non-third-person stative suffixes and the corresponding nominative pronouns. Kouwenberg dismisses the latter fact as of diachronic significance but without synchronic relevance. On the other, some stative forms may take the ventive and subjunctive suffixes; a more expansive set of the stative forms may take accusative or dative pronominal suffixes. None of these elements can be associated with nominals showing any kind of extended nominal structure; all occur freely on verbal forms, with some restrictions relating to

morphophonological form. Kouwenberg is also perhaps the first participant in the modern Assyriological debate on the categorial nature of the stative to take seriously the fact that the stative suffixes are obligatory and obligatorily agree with the subject (parallelling the behaviour of verbal subject-agreement morphemes, and entirely unlike the optionality of (independently referential) accusative and dative suffixal pronouns). Kouwenberg also briefly brings in, but in a somewhat contradictory manner, the facts of the 'Babylonian Vowel Harmony' process (cf. Kouwenberg 2000: 28, 57); we will return briefly to these facts in a subsequent section.

Syntactically, Kouwenberg takes as some of the evidence for the stative's 'verbal' nature the fact that some statives can take accusative-marked arguments; its sole function as a clausal predicate; and the word-order facts of pronoun subjects, reviewed above in the discussion of Buccellati (1968). One contradicatory fact raised by Kouwenberg should be mentioned here. The 'precative', a marker **, is realised with the stative as it is realised with non-verbal, non-stative predicates, in the form *lū* (see e.g. (16), (21), (32) above, against (54)) for a non-stative instance); conversely, with all tensed verbal forms, it surfaces as a prefix *l(V)*-, with various minor allomorphic distinctions based on the form of these prefixes (cf. (55)).

(54) *ann-û* *lū* *gimill-um*
this-NOM.SG PREC favour-NOM.SG
"Let this be a favour!"
AbB 1: no. 46, l. 21 (Kraus 1964).

(55) *{lapt-(am)}* *ana* *{Bābil-im}* *l-i-šš-û-nim*
{turnips-(ACC)} to PlN PREC-SBJ:3-bear-SBJ:Mpl-VENT
"Let them carry the turnips to Babylon!"
Sigrist (2003: no. 57, ll. 10-11).

Kouwenberg's view of this fact is that it reflects nothing more than "the nominal origin of the stative"; it might be better to surmise that some kind of allomorphy based on phonological or morphological structure takes place. Put in the simplest possible terms, stative forms are uniformly 'unprefixed'; even where the stative base is vowel-initial, this is part of the surface form of the lexical head of the predicate, not, as in tensed verbal forms, a prefixal subject-agreement morpheme. We can assume that some kind of phonological domain is established between the *l-*/*lū* morpheme and the following element which determines the appearance of the allomorphs. Thus the distribution of the 'precative' allomorphs can easily be seen as

an epiphenomenon of the morphemic structure of the constituents to which it is associated, not a parallel with non-stative nominal predicates.

Given this principally 'verbal' view of the stative, Kouwenberg's major difficulty is with the stative of nouns and clearly non-'verbal' adjectives. It is worth describing here the character of the various rare cases of non-stative adjective predicates, of which Kouwenberg (2000) has pooled the fullest data set.

Kouwenberg identifies three major categories of the occurrence of adjectives in the SR as clausal predicates which are relevant to the present study.[28] In common with nouns, the presence of (non-conjunction) *-ma* seems to force the predicate to appear in the SR nominative, though examples of this with adjectives are quite rare:

(56) *{eql-(um)}* *mād-um-ma*
{field-(NOM.SG)} much-NOM.SG-EMPH
"The field is extensive."
AbB 3: no. 58, ll. 14 (Frankena 1968).

Adjectives seem to be capable of being SR predicates in some instances when they are plausibly interpreted as if they contained an empty noun (see also the discussion of noun statives later in this section).

(57) *ḫalq-um* *anāk[u]*
lost/destroyed-NOM.SG I.NOM
"I am a lost soul! (?)"
AbB 14: no. 64, l. 17 (Veenhof 2005).

Finally, very rare cases which do not seem to correlate with any particular syntactic or interpretational property.

(58) *šulm-am* *u* *balāṭ-am* *ša* *kīma* *{Sîn}* *u* *{Šamaš}*
wellbeing-ACC.SG and life-ACC.SG ŠA like PN and PN
dāri-um
eternal-NOM.SG
[let A,B gods grant Samsu-iluna …]
"wellbeing and life that is (!) eternal like Sîn and Šamaš."
RIME 4: Samsu-iluna E4.3.7.7, ll. 128-136 (Frayne 1990: 388).

[28] Kouwenberg's other major categories are a (very) slightly freer occurrence of SR adjective predicates in literary texts (most, but not all, post-OB), and clause-like proper names, which are both excluded here; cf Kouwenberg (2000: 34-8) for a fuller collection of examples across dialects and periods.

(59) *u[l]ā* *naṭ-û* *šū*
NEG proper-NOM.SG 3sg.MASC.NOM
"Is it not appropriate?"
AbB 8: no. 130, l. 5' (Veenhof 2005).

These 'pure' instances of SR predicate adjectives examples are extremely few and far between (the examples cited seem to constitute at least half of all the clear cases from core prose OB). Most of the relevant adjectives also occur in the stative (cf. e.g. (19) for *mādum* and (16) in ch. 1 for *naṭûm*). It seems, therefore, in the absence of additional evidence, that these are marginal aberrations. The category of interpretationally 'noun-like' instances is presumably unifiable with the SR predication of nouns, to be discussed further shortly, either in the form of SR predication of a null noun or on the basis of a recategorisation of the adjective.

As for the stative of nouns, Kouwenberg provides the first sustained argument for some substantive restrictions on its occurrence. Most previous work on the stative had assumed that there were no (at least, no systemic) restrictions on which nouns could form statives, and (implicitly) that the stative of nouns had no special restrictions on interpretation relative to non-stative nominal predicates, leaving aside those which result from the obvious syntactic restrictions.[29]

First, statives of nouns overwhelmingly have animate subjects. It must be said that this restriction is not absolute; a very few rather varied cases of noun statives with inanimate subjects, without exception third person singulars, are known. (60) and (61) are all the core OB examples known to Kouwenberg (2000: 39-40), less one of very uncertain interpretation and a number with apparent predicate *tēkīt*, taken to be stative of *tēkīt-um* 'insult'; this is a feminine noun and the morphological form would seem inappropriate for a stative interpretation. (62), quoted below in a different context, seems to be an additional instance of a noun stative with inanimate subject, which is also peculiar for other reasons.

Thus for Kouwenberg "the nominative is the rule,[30] the stative the exception" for inanimates, but the latter cannot be ruled out. We will return to this somewhat puzzling 'not quite obligatory' restriction shortly.

[29] See, inter alia, von Soden (1952/1995: 66/§52a), Buccellati (1968: 11); also, with some qualification, Rowton (1962: 261).
[30] The occurrence of simple inanimate noun predicates in the SR without suffixed *-ma* is itself quite rare, but clearly possible. Kouwenberg (2000: 41) cites the following, quoted slightly more fully here, as a modestly close semantic parallel to (61):

(60) *aššum* *ṭēm* *Etel-{pī}-{Marduk}* *{wakil}*
about news/report[CSTR.SG] PN {overseer([CSTR.SG])}
{bīt-(im)} *ṭēm-mā*
{house-(GEN.SG)} news/report[STAT.SBJ:3ms]-INTERROG_PTCL
"About the news of Etel-pī-Marduk the estate overseer: is it news?"[31]
AbB 10: no. 32, l. 4 (Kraus 1985).

(61) *watr-um* *šurkub-u* *ul* *nēmel*
surplus-NOM.SG transported-NOM.SG NEG profit[STAT.SBJ:3ms]
"A transported surplus[32] is not (a?) profit."
AbB 8: no. 78, ll. 24-25 (Cagni 1980).

An additional and important observation relating to noun statives is appropriate to discuss here, basically due to Kouwenberg (2000), despite certain minor precedents. As we noted in section 3.1.2, the distinction between simple noun predicates in the stative and those in the SR was proposed by Buccellati (1988) to be one of definiteness (in those cases not determined by the more easily diagnosed restriction on overt phrasal complexity). Kouwenberg recharacterises this as a difference not in definiteness but in type of predication, and as a restriction solely on the stative rather than as the crucial element in a scheme for the strict complementary distribution of stative and SR noun predicates: statives are incapable of encoding equative predicates, i.e. those equating the subject with a referential predicate, and are

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(ii) *harrān* *i-llik-am* *ul* *kušīr-um*
journey.CSTR SBJ:3-go.PRET[SBJ:sg]-VENT NEG success-NOM.SG
mād-iš *š-uzzuq*
much-ADV CAUS-(become_)annoyed[STAT.SBJ:3ms]
"The journey he went on was not a success. He is very annoyed."
AbB 1: no. 46, l. 24 (Kraus 1964).

[31] The exact contextual interpretation is not totally clear. It is perhaps possible to postulate an existential interpretation ("Is there (any) news"?), though this would contradict the otherwise complete absence of noun statives with expletive-like subjects. Although the preceding noun phrase is written logographically, and since apparently headed by a construct-state noun would be unmarked for case in any event, we can of course naturally rule out "Is the estate overseer a report?"

[32] There is some minor controversy about the internal syntactic interpretation of the subject *watrum šurkubu*; I here assume a simple noun-adjective structure against Kouwenberg (2000: 39), who proposes that *šurkubu* be interpreted as an infinitive/verbal noun with *watrum* as its (nominative-marked!) object; Cagni (1980: 47) appears to take it as an adjective-noun order, which is all but impossible. Neither awkward interpretation seems necessary. This does not affect the point in question in any case. The lack of *-m* in the form *šurkub-u*, in a letter not characterised, even sporadically, by late-OB general loss of final *-m* in case and other suffixes, is unexplained. It may perhaps have something to do with the exact phonological environment (/*šurkubu(m) ul*/); other sequences /*-um* #V-/ occur in this letter, but not where both vowels are *u* (cf. ll. 41-2); likewise /*-am* #*u*-/, with *-m* (ll. 22 and 44). The genitive singular of an identical form *šurkub-im* (here 'infinitive' rather than (possible) adjective) occurs in l. 17, written explicitly *šu-ur-ku-bi-im*.

restricted to "ascriptive" predicates, i.e. those assigning a property or classification.[33] Thus the noun stative is by Kouwenberg linked solely to ascriptive (non-referential) predication, while the SR predication of nouns can encode either of these types.[34] By his predication-type observation Kouwenberg attempts to unify semantically (and perhaps syntactically outside the specific category of the predicate) adjective and noun statives, under a single type of nominal/adjectival predication which is contrasted with equative/referential predicates, which the stative uniformly is assumed not to be capable of encoding.

Naturally, distinguishing between (unmarked) definiteness and (non-explicit) predication type as criteria in the actual data is sometimes troublesome. However, Buccellati's restriction of simple SR noun predicates to definites, though difficult to disprove conclusively, does seem to be subject to a significant exceptions, as in (10) and (48). I know of only one example which appears to be an exception to Kouwenberg's generalisation, whose noun stative predicate appears in context to be both equative and almost certainly definite. I do not believe this case has been noted before in the literature on statives.

(62)

kiṣir	*{bīt-(im)}*	*ana*	*{šat-(t)-(im)}*	
rent[CSTR.SG]	{house-(GEN.SG)}	to	{year-(FEM.SG)-(GEN)}	
{1/2 GÍN KÙ.BABBAR}	*{warah}*		*ayyār-im*	***rēš***
{half shekel silver}	{month-(CSTR.SG)}		month_name-GEN.SG	beginning [STAT.SBJ:3ms]

"A/the house's rent for a year is half a shekel of silver. The month of Ayyār is the beginning [i.e. of the lease]."
Al-Rawi and Dalley (2000: no. 67, ll. 1-3)

Incidentally, the near-restriction of noun statives to animate subjects, which Kouwenberg treats separately from the notion of the stative being restricted to predicational/ascriptive semantics, is probably explicable in terms of the latter. Noun predicates interpreted as properties have the general cross-linguistic tendency, but not

[33] The terminology in various frameworks and fields for this distinction, or those closely akin to it, is varied, and has of course been subject to extensive debate, further subclassification, etc.; I use the terms favoured by Kouwenberg for the time being. The core distinction in question is 'separate' referentiality of the predicate.

[34] The proposal of a predication-type distinction as the underlying factor in the distribution of stative versus SR predication of non-complex noun phrases has various precedents in brief formulations; see for example Huehnergard (1986: 233 n. 59), attributed to Claus Wilcke. Ad hoc semantic characterisations of similar intent recur in the earlier literature; so for Rowton (1962: 261), although all nouns can "in theory" be statives, noun statives are "rarely formed except for the purpose of describing the subject in terms of the subject's status, function in society, or characteristic behaviour".

an absolute restriction, to human or animate subjects [35] (typically status- or occupation-assignment to individuals, which is precisely the most common context of the noun stative).

Additionally, there does *not* seem to be any animacy restriction or even tendency applying to adjective statives, as can be seen from the data discussion in 3.0.4 (cf. particularly (17), where the same semantically broad adjective is predicated in close proximity of an animate and an inanimate subject). Thus, if one is to accept Kouwenberg's (unformalised) suggestion of a strict parallelism between the structures of noun and adjective statives, this quasi-restriction cannot result from any structural differentiation, and remains unexplained unless it results as an epiphenomenon of such a natural semantic tendency.

Kouwenberg's final analysis of the stative is stated in essentially diachronic terms, despite being based largely on more or less synchronic examination of data. Kouwenberg assumes that in a pre-historical predecessor of attested Akkadian the stative originated in the agreementless predication of adjectives only. Thus verbal adjectives too were predicated in a morphologically bare form, sometimes with following nominative pronoun subjects; this combination became grammaticalised as an agreement paradigm and reanalysed syntactically as a "verbal form". In this development the 'verbal' stative came to "bypass" the verbal adjective,[36] and indeed, in Kouwenberg's eyes, some verbal adjectives became something like 'nominalisations of the stative'.

The 'verbal stative' having become established, it then conversely 'absorbed' the adjectival stative as a "verbalization", secondarily spreading (implicitly, because of the uniformity of predication type discussed above) to a subset of noun predicates as an optional predication strategy.

It is not clarified what this absorption of non-verbal categories into a syntactically verbal predication structure might constitute on the synchronic level.

[35] The distinction between 'animate'- and 'human'-denoting subjects is kept deliberately vague here, on account of the situation in the Akkadian data. I know of no noun statives whose subject denotes non-human animates; all the possible exceptions are inanimate-denoting. Equally, though, the paucity of data for non-stative, SR predication of nouns on this particular question does not enable a contrast to be drawn.

[36] Here Kouwenberg's diachronic analysis is basically a specification and reformulation of the view expressed by Rowton ("[i]n its formative stage the permansive was an adjective in the course of being integrated with the tense system of the verb", Rowton 1962: 301; despite this, and in partial accordance with Kouwenberg's view on the subject, Rowton denied that the 'active stative' was synchronically related to the verbal adjective, *id.* 260).

Indeed, Kouwenberg's comments on noun statives essentially relinquish any attempt at syntactic analysis entirely. For Kouwenberg, thanks to the link established by predication type, noun statives "perform the semantic function of an adjective", a view which, whether or not it may reflect a genuine semantic commonality, does not help us explain the syntactic facts; nor, perhaps more significantly, to define or explain the insertion of either category in a 'verbal' syntactic structure, a problem which will be a leading focus of the analysis pursued in section 3.2.

Besides the alleged semantic link to adjectival predication, Kouwenberg assumes that a morphological fact of noun statives, their failure to manifest nominal gender morphology – specifically the feminine (singular) morpheme -(*a*)*t*- – strengthens this (pseudo-)explanation of noun statives as an extension of the adjectival stative (themselves substantially unexplained in this analysis).

The bare form in which feminine noun statives appear (at least in the first- and second-person forms), is, according to Kouwenberg, unique to the stative: that the stative of nouns is based on and to some extent unifiable with that of adjectives "explains the omission of the feminine morpheme -*t*- in the first and second person of the stative […] This is clearly taken over from the adjective, where -*t*- is a suffix added to the stem, and present only in a part of the paradigm. In nouns -*t*- is an integral part of the word, which is always present and can be separated only by means of an etymological analysis, not by means of a grammatical (synchronic) one. The fact that it is nevertheless omitted in statives of nouns shows that these are formally patterned on those of adjectives" (Kouwenberg 2000: 55).

Besides the dubious treatment of an essentially regular suffixal gender morpheme as morphemically indistinguishable from the stem in the case of nouns, the particular argument concerning feminine -*t*- can in any case be contradicted on empirical grounds; the notion that the feminine marker -*t*- is 'inherent' or 'inseparable' in any substantial sense is clearly incorrect, for a number of interrelated reasons. First, we may note that the feminine plural of nouns (and adjectives) is marked by -*āt*-. If the -*t*- of this morpheme were the same (that is, the same surface realisation of the same underlying feature) as the feminine marker in the singular form of feminine nouns, this would suggest morphemic sequences -*ø*-*t* (SG-FEM) and -*ā*-*t*- (PL-FEM). There is no other case in Akkadian in which an affixal number-marking morpheme precedes an affixal gender morpheme, a situation which is highly unusual cross-linguistically; where morphemically separable, number is typically 'outside'

gender. This suggests that both the *-t-* morpheme and the *-āt-* morpheme are, as regards their surface forms, atomic ('feminine singular' and 'feminine plural' respectively). This can be further confirmed by the fact that *-āt-* is the feminine plural marker for feminine nouns which do *not* display the feminine singular morpheme *-(a)t-* despite being grammatically feminine for agreement. So, for example, the plural form of *umm-(um)* 'mother' is *umm-āt-(um)*:

Thus it seems far more likely that the feminine (singular) *-t-* is a suffix in Kouwenberg's terms, i.e. a formally separate morpheme realising a gender feature, in combination with number. The exact syntactic representation of gender features, and their status as 'lexical' or syntactic is not at issue here: at least, the surfacing of feminine nouns as a morphemically indivisible stem including *-t-* cannot be maintained.

Thus we are left with perhaps the most specific and detailed examination of the stative in synchronic terms, contributing a number of novel observations and recharacterisations of aspects of the stative phenomenon, but without a syntactic analysis as such. Some kind of syntactically driven recategorisation is clearly envisioned here, but not made explicit; the synchronic process by which adjectives and nouns are predicated "as verbs" is not touched upon.

3.1.4 Some Final Points

Before moving on, we will deal in the following sections with a number of facts relevant to the stative construction which it makes sense to consider separately. Sections 3.1.4.1-3.1.4.3 consider the implications of some principally morphological facts which we have not yet been discussed explicitly or as a whole; section 3.1.4.4 with an important syntactic fact concerning noun statives which, to my knowledge, has not previously been treated as significant.

3.1.4.1 The Third Person Stative Suffixes

We have not yet considered in a concerted way the significance or otherwise of the obvious and much-remarked-upon divergence in form between third-person statives and the remaining forms in terms of the former. It will be recalled from our discussion of Buccellati (1968)'s 'nominal sentence' analysis that there are striking

commonalities of form between the final part of the non-third-person stative suffixes and the corresponding nominative pronouns, as shown in (43), repeated below.

(43)		SG		PL	
		Stative suffix	Pronoun	Stative affix	Pronoun
	3M	[zero]	*šū*	*-ū*	*šunu*
	3F	*-at*	*šī*	*-ā*	*šina*
	2M	*-āta*	*atta*	*-ātunu*	*attunu*
	2F	*-āti*	*atti*	*-ātina*	*attina*
	1	*-āku*	*anāku*	*-ānu*	*nīnu*

It will be noted that while the first and second person forms have a clear apparent cognacy with the nominative pronouns, the third person forms do not. Furthermore, the third person forms bear a resemblance to aspects of both nominal gender and number morphology and the suffixal components of the non-stative verbal agreement paradigm. These commonalities are summarised in tabular form in (63).

(63)		Stative suffix	Nominal suffix(es)	Verbal third-person agr. suffix
M	SG	[zero]	[zero]	[zero]
	PL	*-at*	*-(a)t-*	[zero]
F	SG	*-ū*	*-ū* (PL+NOM)	*-ū*
	PL	*-ā*	*-āt-*	*-ā*

Thus in the cases of both nominal and verbal suffixal morphology there are strong similarities but also differences. Thus the feminine singular stative form is at variance with the zero verbal agreement suffix, while the feminine plural suffix is at variance with that of nouns. It should also be noted that if there were any connection between the nominal morphology and the third-person stative suffixes, it would face the problem that while the nominative masculine plural of nouns is *-ū*, the plural-marking morpheme for masculine adjectives in *-ūt-* (unlike the plural morphology of masculine nouns, *-ūt-* is distinct from the case morphology), yet the stative suffix of the third person masculine plural, even for primary adjectives, is *-ū*; cf. (64), and (65)-(66) for a contrast between the stative *-ū* in an 'adjectival-verb' stative and the SR plural of the corresponding adjective. There is doubtless a diachronic connection of the third person stative suffixes with one or other of the sets of suffixes shown in (63) (perhaps even both), but a synchronic identity appears very doubtful even on grounds of surface form.

(64) *šār-ū* *ul* *išar-ū-ma*
wind-MASC.PL.NOM NEG correct-STAT:SBJ:3mpl-CONJ
"The winds are not right, [and …]"[37]
AbB 14: no. 58, ll. 7-8 (Veenhof 2005).

(65) *{alp-(ū)}* *ištu* *ta-llik-u* *rīq-ū*
{ox-PL(MASC.NOM)} since SBJ:2-go.PRET[SBJ:sg]-SBJV idle-STAT.SBJ:3mpl
"The oxen have been idle since you went."
AbB 3: no. 97, ll. 1-2 (Frankena 1968).

(66) *u* *ana* *{alp-(ī)}* *rīq-ūt-im*
and to {ox-PL(MASC.ACC/GEN)} idle-MASC.PL-ACC/GEN
{ukull-(âm)} *kīma* *tašīm-t-i[m]*
{food_provisions-(ACC.SG)} like good_sense-FEM.SG-GEN
šukun-šunūšim
put.IMPV[SBJ:2sg]-DAT.3mpl
"And for the idle oxen supply food-provisions in a sensible way."
AbB 3: no. 94, ll. 9'-10' (Frankena 1968).

Additionally to this, it seemingly cannot be maintained that singular statives of feminine nouns are built on stems including the feminine suffix -(*a*)*t*; otherwise, we would expect the preservation of this affix in the singular non-third person forms at least. As a matter of morphology across Akkadian, feminine noun statives never preserve the feminine gender morpheme *-(a)t* in the first and second person stative forms.

A slight problem arises here in the context of our study: cases from *prose* OB of noun statives of feminine nouns which are clear instances of this phenomenon are very hard to come by. They are clearly attested in other varieties, and in literary texts, but prose OB examples of the first and second persons are not known to me. (67) is a representative example from a literary text, probably of late OB or post-OB origin, the noun *sinniš-(t-)* 'woman' in the first person singular stative, without *-t-*. This loss of *-t-* is characteristic of feminine noun statives wherever they occur in such forms. One case only is known to me of a clear instance in prose OB of a feminine noun stative whose stative ending is almost certainly impossible to classify as the nominal *-(a)t-* morpheme, already quoted as (6) above and repeated below. The hypothetical

[37] Though clearly related to the verb *ešērum* 'to become right/fair/normal', *išar-* is not a regular 'verbal adjective' form. CAD E 363 notes the apparent absence of regular 'verbal' statives of *ešērum* in favour of statives of *išarum*. However, in later dialects at least, there are a significant number of cases, in addition to both stative and SR use of *išar-*, of statives of the form *ešer-* (Babylonian)/*ašer-* (Assyrian), i.e. the form that would be expected as a regular stative related to *ešērum*. These latter appear, based on the available data, to be used *only* as statives, not as SR-marked adjectives. CAD I/J 224-6 lists these forms under *išaru* as mere variant spellings, which seems at best dubious. Admittedly the regular forms cannot be assumed for OB. I assume, however, that at very least *išarum* must be an independently specified lexical item; as such it is taken here as an 'adjectival' stative in the narrow sene.

feminine noun *muškēn-t-* (*mušket-t-*) seems to have no obvious attestation in the SR (cf. CAD M2 272-6; by contrast, the subject noun *awīl-t-* has a wide attestation in the SR); we can thus presume that *muškēn-et* in (6) is an instance of a noun stative with a feminine subject built on an otherwise masculine-only noun.

(67) *sinniš-āku*
woman-STAT.SBJ:1sg
"I am a woman."
SBH: no. 56, l. 40 (Reisner 1896).

(6) *awīl-t-um* *muškēn-et*
(free)man-FEM.SG-NOM *muškēnum*-STAT.SBJ:3fs
"The lady is a commoner."
AbB 6: no. 148, l. 11 (Frankena 1974).

In the light of these two facts, if the third singular masculine stative form is a bare masculine nominal form, it is unclear why an intrinsically *feminine* noun would have its stative built on a bare masculine form. Conversely, however, if the singular stative of nouns *is* built on a form so 'bare' that it lacks gender marking, then the 3rd singular feminine stative suffix *-at* must be (synchronically) unrelated to the nominal *-(a)t* feminine morpheme, which renders very suspect an analysis which takes the *-ū* and *-ā* plural third person stative suffixes to be *gendered* nominal affixes.

In view of these observations (which, admittedly, cannot be totally conclusive with sole reference to morphological facts), we adopt the view here that the stative paradigm is unique throughout to the stative, that, in other words, the third-person suffix forms do not reflect wider nominal or verbal morphology.

3.1.4.2 Vowel Harmony and the Status of *-ā-*

It is notable that the phonological process known as Babylonian Vowel Harmony applies to non-final *a*-quality vowels in the stative affixes. Briefly, *a*-quality vowels are harmonised in Babylonian dialects of Akkadian to *e*-quality vowels in word-level structures containing an *e*-quality vowel, progressively and retrogressively. In the stative this applies to the vowel of the third-person feminine singular suffix *-at* (cf. (4) versus (6)), and to the *-ā-* element of the non-third-person forms (as in (3) versus (5) and (7) versus (8)).

BVH does not apply, however, to final vowels (e.g. the second-person masculine singular affix surfacing as *-ēta* in BVH contexts and the third person

feminine plural -*ā*); this fact may be unproblematic, since there appears to be a general failure of BVH to affect word-final vowels. Unfortunately there are no intermediate vowels in the agreement suffixes which demonstrate whether BVH would apply in non-final positions there.

That BVH applies at all within the stative suffixes is of note for the analysis of the stative form: BVH is a word-level process, which entails not only that the stative suffixes are indeed affixal but also that no type of domain is established which would block the process in so far as it applies to the suffixes. At least some suffixal morphemes containing non-final -*a*- seem to be generally immune to BVH, including the ventive morpheme -*am*, perhaps indicating the establishment of some kind of syntactically-determined phonological domain blocking its application.

The diachronic origin of the -*ā*- element in the first- and second-person stative suffixes is uncertain. Proper names with clausal structures are attested from Old Akkadian which appear to show stative-like third person singular predicates with a final suffixal -*a*; these instances disappear after the Old Akkadian period (and co-exist even in Old Akkadian texts with zero-suffixed statives in proper names):[38]

(68) *šu-be-la* = *šū-bēl-a*
he master-?STAT.SBJ:3(m)s

It is possible, therefore, though impossible to prove, that at an earlier diachronic stage all forms of the stative were characterised by a suffixal -*a* morpheme, including the zero-marked third person singular (this might apply also to the third person plural -*ū* through subsequent vowel coalescence, though this issue is somewhat difficult). Thus it is a possibility (though it must be emphasised that it is only a possibility)[39] that at this hypothetical earlier stage the stative was characterised by a morphemic sequence STEM-*a*-AGR, in other words that an overt affixal morpheme existed which represented an underlying syntactic element other than those related to the stem and subject agreement. If true, this would provide a sidelight in the origin of the stative which is basically in line with the syntactic characterisation to be pursued

[38] For discussion and references on this data see Gelb (1961: 146-153) and Hasselbach (2005: 189).
[39] This point has been highly controversial and is implicated in broader controversies concerning the diachrony of cognate verbal forms in the Semitic family generally; for a thorough summary of the debate see Kouwenberg (2010: 181-9), with extensive references. A rather similar speculation to this one is offered by Loesov (2005: 144), though with more emphasis on the diachronic origin of the stative phenomenon itself, in the form of the hypothesis that -*ā*- might be a reflex of a "prehistoric copula".

in section 3.2, perhaps suggesting that the driver of the intermediate movement/incorporation operation proposed there was at one stage of the language represented by an overt affixal morpheme.

3.1.4.3 II-Geminate Roots

An important set of facts which has not previously been touched upon directly concern the form of the stative corresponding to verbs/verbal adjectives related to consonantal roots whose second and third radical consonants are identical (verbs/roots *mediae geminatae*, and various other terms in the literature). These facts have been implicated in the Assyriological literature in the discussion of the relation between verbal adjectives and statives. This data will also be significant, for slightly different reasons, to our discussion later.

As noted in section 3.0.5 above, verbal statives other than those related to 'adjectival verbs/roots' uniformly have the vowel pattern CaCiC (*paris*-). This applies also to the 'geminate' roots in question (e.g. *šakik*). By contrast, 'adjectival' verbs/roots have verbal adjectives and statives which may, for any given root, have the patterns CaCiC (*paris*-, e.g. *damiq* 'good'), CaCuC (*parus*-, e.g. *maruṣ* 'ill') and CaCaC (*paras*-, e.g. *rapaš* 'wide'). Only one such form corresponds to any given particular consonantal root, but the determining factors appear to be arbitrary, at least synchronically. This has often been taken to indicate that these statives are formed on the basis of the adjective, but from 'the verb' (see esp. Kouwenberg 2000: 58, 61) in all other categories, where the form is consistent.

The 'geminate' roots in question provide some further evidence on this question. Where II-geminate statives are formed from adjectival roots, they uniformly have forms such as *dan* (perhaps *dān*) < *dnn*; no such stative form appears with a bisyllabic form like *šakik*. Kouwenberg takes this to indicate still more strongly that statives formed from these roots are 'adjectival statives' proper, that is, are not directly tied in any way to the (usually inchoative) verbal forms related to these roots.

3.1.4.4 Phrasal Complexity in Noun Statives

As we have seen already, verbal statives regularly manifest arguments subordinate to them, such as accustive-marked objects in the case of the 'active stative', which

precede the stative itself in accordance with the normal word-order relations of verbal arguments in Akkadian. There are also cases of PPs manifesting indirect objects, as well as various adjunct PPs.

Noun statives, as we have seen, are obligatorily radically devoid of any complex syntactic structure corresponding to the extended structure of the noun phrase. There is, however, one intriguing quasi-exception to this generalisation, which has not yet been recognised as significant in this respect.[40]

The sole cases in which the stative of nouns occurs with any kind of constituent corresponding to a non-head member of the complex structure of the conventional 'noun phrase' are of the following kind:

(69) *Narubtum* *{mār-(at)}* *Annu[…]*
PN {daughter-(FEM.SG[CSTR])} PN [end broken]
ana *{Il}šu-ibnīšu* *ašš-at* *ana* *Be^{l}e^{l}tum* *am-a^{t}*
to PN wife-STAT.SBJ:3fs to PN female_slave-STAT.SBJ:3fs
"Narubtum daughter of Annu[…] is wife to Ilšu-ibnīšu, she is slave to Belētum."
van Lerberghe (1986: no. 87, ll. 12'-14').

It is to be noted that in this example the PPs preposed to the noun statives correspond to a constituent expressed as a genitive-marked possessor in a nominal structure (cf. typically a construct-state possessive as in 6 in chapter 1). Furthermore, these nouns express inalienable relations; in other words, although the occurrence of a possessor constituent is certainly not 'obligatory' with such relational nouns, the lexical semantics of these items specifies the necessary existence of such a relation. This means, simplifying, that the constituents expressed as post-nominal genitive-marked nominal phrases in the typical case, and as pre-'nominal' PPs in (69), are partially determined in content by the head noun, whether as 'noun' proper or as 'stative'. This is a very much weaker kind of determination than 'selection' of arguments, but nonetheless the PPs in (69) must be regarded as intrinsically related to the noun which we may (informally) term the 'lexical head' of the stative predicate. Furthermore, they appear between the subject and the (as we have concluded,

[40] A parallel example has received extremely brief notice by Kouwenberg (2000: 42 n. 25), who utilises it without recongnising the significance accorded to it here and on a point only loosely related to those made here. The same example has also been cited as an example of the noun stative in various other places in the Assyriological literature without any special notice (e.g. Huehnergard 1986: 227).

syntactically verb-like) stative, in other words a typical word-order position for material originating in VP.

PP arguments and adjuncts of verbs proper are always pre-verbal; likewise PPs subordinate to verbal statives. PP 'modifiers' of noun statives are rare, but where they occur they too follow this pattern; furthermore, as we have seen, nominal-type syntactic relations such as possessive constructions thus correspond in noun statives not to similar syntactic relations, but to prepositional phrases. PPs internal to non-stative nominal constituents, to my knowledge, rarely or never express the types of relation exemplified in (69). Still further, the PPs under discussion, and indeed all other PPs associated with statives of all kinds, uniformly *precede* the stative. Conversely, PPs subordinate to nouns in conventional nominal constituents uniformly *follow* the head noun and other material (cf. also (62) above):

(70) *ana* *Marduk* *bēl-im* *rab-îm*
to PN master-GEN.SG large-GEN.SG
nādin *{ḫegall-(im)}* *ana* *il-ī*
giver[CSTR.SG] {abundance-(GEN.SG)} to god-MASC.PL.ACC/GEN
"For Marduk, the great lord, giver of abundance to the gods."
RIME 4: Hammurabi E4.3.6.17, ll. 1-7 (Frayne 1990: 354)

(71) *Zababa* *u* *Eštar* *bēl-ū* *gitmāl-ūt-um*
PN and PN master-MASC.PL.NOM perfect-MASC.PL-NOM
šagapūr-ūt-um *in* *il-ī*
powerful-MASC.PL-NOM in god-MASC.PL.ACC/GEN
"Zababa and Eštar, perfect, powerful lords among the gods."
RIME 4: Samsu-iluna E4.3.7.7, ll. 48-50 (Frayne 1990: 386)

All this leads to the unavoidable conclusion that statives, including statives of nouns, share the word-order properties, hence in some sense and to some significant degree the syntactic configurations, of the Akkadian 'verb phrase', diverging in various very important ways from otherwise unviolated syntactic behaviours of the Akkadian 'noun phrase'. The particular evidence represented by (69) suggests that an optional, (loosely) quasi-selectional process can apply between noun-stative 'heads' and a quasi-argument whose syntactic configuration parallels that of similar constituents subordinate to verbs, and is explicitly at variance with any aspect of noun phrase structure; in other words, to the extremely limited extent to which *noun* statives may manifest complex structure related to the lexical properties of the noun itself, this structure is manifested in unambiguously verb-phrase-like syntax.

3.2 A Syntactic Analysis of the Stative

As we reviewed in some detail in section 3.2, a primary tension has always existed over the controversial 'categorial ambiguity' which the stative on the surface appears to present to us. This has always led to morphological/syntactic concepts of the stative which are, with a rather startling consistency despite their dramatic divergences, reduceable as to their shortcomings first and foremost into a failure to develop a notion of the stative which can accommodate this 'cross-categorial' property while retaining a unitary analysis of the stative phenomenon. One of Kouwenberg (2000)'s major purposes is to reject what he terms "compromise solutions" of the type pursued by Huehnergard (for whom the stative is non-verbal except in the case of the active stative) or Kraus (for whom, somewhat ambiguously, some statives are nominal and some verbal, depending on the categorial and semantic nature of the stem). As we have seen, however, this desire to 'unify' the stative can go only so far when pursued in a minimally theoretical space, with no clear vocabulary or conceptual apparatus for discussing what a syntactic category 'is' and how syntactic processes may cut across categories while otherwise substantially sharing most other properties. Nonetheless, the basic 'outlook' on the stative described in section 3.1.3 above, of the stative as substantially syntactically 'verb-like' but nonetheless subsuming other lexical categories, can serve as a conceptual starting point for a syntactic theorisation of the stative through which we will seek to overcome these perennial difficulties.

3.2.1 Noun Statives and the Nominal Derivation of Verbal Structures

Noun statives have, as we have seen, a number of remarkable properties. Both from the perspective of the present study in particular, but also more generally, they can be seen to constitute the most obvious and puzzling aspect of the multifaceted Akkadian stative phenomenon.

Let us briefly recapitulate the major special properties of the noun stative. Nouns appearing as stative predicates are interpreted similarly to certain types of copular predication of nouns; moreover it appears that their interpretation is always of an ascriptive kind.[41] Nouns as statives are thus uniformly non-referential. Noun

[41] As noted above, (62) is a possible exception to this generalisation. To my knowledge there are no other known exceptions in OB; it is further unusual in belonging to the very small class of noun statives

statives together with statives of other kinds substantially have the word-order properties of tensed verbal predications: they are obligatorily clause-final; overt subject pronouns precede noun statives (but follow non-stative noun-phrase predicates); subordinate constituents, to the limited extent to which they are possible, appear in verb-phrase-like configurations. Furthermore they show (or, at least, the extended 'stative complex' shows), via the suffixal morphology peculiar to the stative, subject agreement for number, gender, and, most significantly, person. Finally, the point which attracted our attention to noun statives in the first place: a noun as stative must be structurally bare in an extreme sense, reduced essentially to the noun stem itself; all overt complex phrasal structure associated with nominal projections, together with all nominal suffixal morphology including markers of case, number, and gender, are obligatorily absent. This is not any kind of general restriction in the language, as the widespread predication of noun-headed constituents, with fully complex structures, indicates.

Some of these characteristics are markedly similar to the more or less consistent properties of denominal verbs in the typical sense of this term in the general linguistic literature (cf. Clark and Clark 1979) and in recent generative work (e.g. Hale and Keyser 1993, 2005; Harley 2005). However, there are also marked divergences from recognised types of denominal verbs: most notably, the 'copular' interpretation of Akkadian noun statives does not correspond to any of the well-known types of denominal verbs described in the literature; we will return to certain other important differences later.

It is well-known that denominal verbs embed bare nouns, and do not allow the realisation of affixal nominal morphology (e.g. number) nor the surfacing of modifiers and other aspects of complex nominal structure (either as part of the embedded material or in any kind of 'stranded' position), as shown for English *shelve* in (72)-(74).

(72) a. He put the books on a/the shelf.
b. He shelved the books.
c. He put the books on (a/the) shelves.
d. *He shelvesed the books.

with inanimate subjects. Within this category it is also the only case I know of whose subject denotes a date. I will therefore set aside this example as an unexplained isolate.

(73) a. He put the books on the linguistics shelf.
b. *He linguistics shelved the books.
c. *He shelved the books linguistics.
d. *He shelved the books on the linguistics.
e. He put the books on a wide shelf.
f. *He wide shelved the books.
g. *He shelved the books wide.
h. *He shelved the books on a wide.

(74) a. He put the books on this shelf.
b. He (*this) shelved the books (*this).
c. *He shelved the books on this. [cannot be interpreted as (a.)]
d. He put the books on three shelves.
e. *He three shelved the books.
f. *He shelved the books (on) three.

Furthermore, when subject agreement is marked in association with verbal structures, denominal verbs also obligatorily show subject agreement; this subject agreement is usually aligned with morphosyntactic marking associated with verbs in general and distinct from markers of and of the relevant features which are associated with nominals as such[42] (there are certain subtler divergences here from subject agreement in the Akkadian stative, which we will return to in subsequent discussion).

(75) a. I saddle the horse each morning.
b. He saddles the horse each morning.
c. It is/becomes/remains a saddle(*s).

The nominal component of denominal verbs consistently cannot be interpreted as referential. Thus, for example, English *shelve* cannot in itself be interpreted with reference to any concrete instance of a shelf; 'instrument' denominals such as *hammer* need not be interpreted as involving any instance of the implement in question (so (76) is valid).[43] Denominal verbs also, for example, fail to antecede pronouns; so *it* in (77)a cannot be interpreted as referring to any shelf, contrary to (77)b.

[42] The expression of person features in subject agreement of this kind, and in the Akkadian stative, is naturally to be distinguished from the pervasive capacity for morphological marking of person on nouns as nouns regardless of their structural position (i.e. not merely where predicative in some sense), which is perhaps a possible, though cross-linguistically rare, phenomenon; cf. e.g. Nahuatl (Andrews 1975). Akkadian nouns have no capacity for person marking outside the stative (further, as we have seen, the marking of number and gender in the stative is distinct from the marking of these categories on non-stative nouns).

[43] The relevance of the latter point, and the status of verbs similar to *hammer* as denominal, is disputed. Arad (2003), following Kiparsky (1982), assumes that there are two classes of such instrument-type 'zero-related' noun-verb pairs in English, one derived from a common semantic core/root of manner-

(76) I hammered the nail with a shoe.

(77) a. John shelv‘$_i$’ed a book$_j$ and it$_{j/*i}$ fell down.
b. John put a book$_i$ on a shelf$_j$ and it$_{i/j}$ fell down.

As we have seen, statives of nouns are substantially verb-like in their syntactic properties. Taken together with the verb-like qualities of their syntax, the coincidence of properties of noun statives with denominal verbs in terms of radical ‘bareness’, morphological and syntactic, on the one hand, and lack of referentiality on the other,

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like meaning (so *hammer* = “strike with the flat surface of a solid object”) and another (e.g. *tape, button*) which, unlike the former type, is taken to imply the use of the relevant implement and thus implies the existence of such an item in relation to the activity. In this view, only the latter class are taken to be denominal; the former derive both noun and verb independently from the same abstract root. So the verbs in (iii) belong to the non-denominal class, while (iv) are denominal and as such are alleged to be restricted to the instrument denoted by the noun (from Arad 2003: 756):

iii. a. He hammered the nail with a rock.
b. I paddled the canoe with a copy of the New York Times.
c. String him up with a rope!

iv. a. *She taped the picture to the wall with pushpins.
b. *Jim buttoned up his pants with a zipper.

That this is in fact a genuine difference is not at all clear, however. If *hammer* had roughly the alleged interpretation “strike with the flat surface of a solid object”, (v)a. ought to be possible; encyclopaedic knowledge of the implausibility of the use of certain objects, however, seems to rule out *coin* or *pane of glass*. Conversely, if the meaning of *tape* is solely “apply tape”, (v)b.-c. ought to be impossible; on the contrary, if *tape* means roughly “affix using a material with the relevant properties of tape (having a thin sticky surface, etc.)”, these cases are not problematic: like *hammer*, the verbs refer to a typical activity defined in relation to knowledge of the function of a particular implement - it simply happens that many fewer cases exist of objects which can perform the typical function of the object denoted by the instrument-noun by means of similar properties to those of that object. Most cases, even if the vast majority of actual occurrences will imply the ‘default’ instrument, are capable of exceptions; so even *button* can be replaced by *duffel* in (v)d., a duffel being one of the very few types of real-world object which is not a button but can be used to perform the typical function of a button. Likewise, even such apparently inflexible non-instrument cases as *salt* and *sugar* require only a “functionally similar” substance, as in (v)e.-f. (very similar doubts to these are expressed briefly by Haugen 2009: 255-6).

v. a. ??He hammered the nail with a coin/a pane of glass.
b. He taped the postcards to the notice-board with unusually sticky Post-It Notes.
c. He applied adhesive to the back of his two old leather belts and triumphantly taped a map of the world to the wall with the belt that held up his trousers on his wedding day.
d. He buttons his coat with duffels.
e. He salts his food with potassium chloride on account of his high blood pressure.
f. He sugared his soufflé with Canderel.

None of this is to deny that some intuitively denominal verbs, including some of the “noun-instrument” class, may in fact have the structural differentiation and wider semantic independence from the relevant nouns claimed by Arad (2003) and others, for which there are additional and varied kinds of evidence. However, the properties distinguishing ‘truly denominal’ verbs of this kind do not seem to involve referentiality or specific implication of existence, at least with this class of nouns. Nor is it to deny that some denominal verbs may for semantic reasons uniformly imply the existence of instances of the noun-denoted entities (notably, perhaps, the English class of ‘removal’ verbs, such as *pith (an orange)*, *stone (cherries)*, etc.); but it is certainly not a common feature of apparently denominal verbs nor one that can be claimed to inhere in ‘true’ denominals.

is striking, and could be taken to suggest the possibility of an underlying similarity of structure.

However, the interpretation of Akkadian noun statives does not coincide with any generally recognised type of denominal verb. The noun stative uniformly has an interpretation equivalent to that of a copula with a nominal complement (more specifically, it is restricted to ascriptive/predicational meaning). Classifications of denominal verb types have been drawn up along various lines. These have included both restrictive semantic classifications and according to theories of underlying configurational structures from which denominal verbs are taken to derive by syntactic operations. So Arad (2003) proposes a "limited set" of mappings from semantic noun types and the possible interpretations of corresponding denominal verbs:

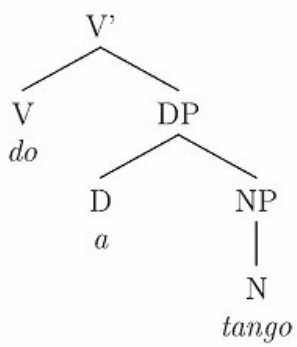
(78)

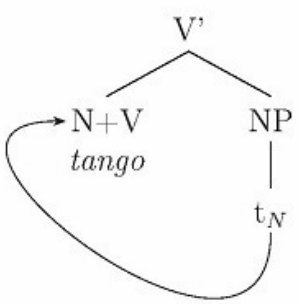
Noun type	English examples	Verb meaning
material/entity	*tape, sugar, saddle*	apply/put N
entity	*pit, stalk, core*	remove N
instrument	*lasso, pitchfork*	use N
location	*pocket, box, bottle, shelve*	put something in/on N
entity	*button*	typical activity related to N
material/entity	*cake*	become N
entity	*calve*	create/bring about N

(Arad 2003: 763, presentation adapted)

Hale and Keyser (1993, 2005) and subsequent work attempt a classification of denominal verbs according to variations in derivation by syntactic operations. Abstracting for the moment over much complexity and debate, denominal verbs are assumed to derive, via syntactic operations, by movement and incorporation of a noun, in the final instance with a (typically null) verb; the various underlying structures result in some of the major differences of interpretation between different types of denominals. So, according to Hale and Keyser (1993), unergative denominals (and usually, in such theories, unergatives more generally), for example verbs of very specific types of motion/activity such as *tango*, or verbs of specific types of birthing (e.g. *calve, foal*), derive from structures in which the relevant noun is the object of an underlying light verb, as shown in (79)a.-b. contrasting a V-N structure with an overt verb with a 'denominal-verb' comparator (it should be noted that these are summary

representations abstracting over many finer questions of syntactic structure, the nature of projection, etc., which for the time being are not relevant).

(79) a. 

b. 

By contrast, location denominals (*box, bottle*, etc.), denoting usually the placement of an object in/on an instance or instances of the object denoted by the noun (or some functionally similar object) are taken to correspond to the syntactic structure of an overt verb which shows a similar argument structure overtly, such as *put*, thus incorporating the underlying noun first into an underlying prepositional head and subsequently into a light verbal head.

The major syntactic structures from which denominals are taken to derive in the theory of Hale and Keyser (1993) are of these two types: incorporation of a direct object to a light verb semantically resembling *do*,[44] and incorporation of the nominal complement of a preposition successively into a null preposition and a light verb (there may be multiple light verbs of different semantic properties involved with possible different subcategories of denominals here, an issue which is left aside in the present discussion; cf. Folli and Harley 2005).

[44] Hale and Keyser (1993) consider that this is the general mechanism deriving unergative verbs. Hale and Keyser (2002, 2005), in light of the possibility of unergatives with overt hyponymic objects (such as *dance a Sligo jig*), propose an alternative derivation for unergatives as non-denominal, deriving from direct insertion as verbal heads, which can then take either a null object (in the typical case) or a hyponymic object, determining the restriction to these two types of object by reference to the selectional properties of the head. Others have maintained the syntactic derivation of unergatives from a (true) object (e.g. Harley 2005); the hyponymic object problem has been tackled in an incorporational analysis by Haugen (2009), who relegates (highly restricted) hyponymic objects to late insertion into the lower copy of the incorporated nominal which it is proposed can, on the basis of the application of lexical insertion in the framework of Distributed Morphology to feature bundles which can accommodate the insertion of diverse material matching the relevant features, be underdetermined for the actual lexical material inserted provided it meets conditions of close similarity, producing the hyponymic 'effect'. Note that we naturally abstract here over a great many details of the successive formulations of analyses such as these which, though implicated in this particular question, are of little relevance to the immediate discussion as a whole, one simpler example of which being the distinction later made between incorporation (via head movement, as for Baker 1988) and the innovative 'conflation' operation, which is proposed by Hale and Keyser (2002) to have properties divergent from those of head movement and to be involved instead of the latter in the derivation of denominals.

Common to virtually all generally proposed categories of denominal verbs, regardless of the fine structure of this or other lines of analysis, is a process or event semantics in the widest sense, excluding any kind of 'stative' interpretation both in the meaning that inheres in this term in the general linguistic literature and as a characterisation of the phenomenon for which 'stative' is rather divergently employed to denote to in the descriptive literature on Akkadian.[45] Most particularly, denominal verbs or verbal structures have not been taken to be capable of producing copular-like interpretations. Thus the Akkadian noun stative, which unambiguously has only such an interpretation, does not fall within the compass of what has traditionally been regarded as a denominal verb, despite clearly involving the embedding of a noun as the lexical material at the core of a syntactically 'verb-like' predicate.

The copula-like interpretation of the stative extends also to adjectival statives, including the primary-adjective statives, and *parVs*-type adjectives related to 'stative roots'/'adjectival verbs' (which, as we noted in section 3.1.4.3, are probably a unified category with the former).

As with denominal verbs, such an interpretation is not associated with generally known types of deadjectival verbs, which are usually taken to always express change-of-state in some sense. In a decompositional approach, deadjectival verbs are usually taken to originate in the incorporation of an adjective into a verbal head (or heads); so Hale and Keyser (1993) derive inchoative deadjectivals by incorporation to a verbal head expressing change of state and projecting an inner subject position, causative deadjectivals via incorporation to a causative head introducing an agent.

There is thus a common property in these two cases. The Akkadian stative, nominal and adjectival, produces copular/'stative' interpretations, whereas any kind of denominal or deadjectival verb as normally understood has not been taken to be capable in any subtype of producing such interpretations.

We could take it to be in fact surprising that there is no generally recognised capacity for denominal and deadjectival verbs to produce interpretations like those of copular clauses. If we were to assume that copulas (of at least some kind) were verbal

[45] With the caveat that a small amount of attention has been paid in the literature on denominal verbs and related questions to so-called *stative verbs* in the semantically defined sense (including copulas, but also including, inter alia, verbs of psychological state such as *fear*, *love*, *respect*), a class which shows certain peculiar properties such as incompatibility with progressive aspect; so for example Hale and Keyser (2005) envisage a peculiar type of incorporation structure for a subset of these verbs assumed to be possible denominal verbs, not including copulas; we will return to some questions related to stative verbs in this sense in our subsequent discussion of Akkadian verbal statives.

in nature, regardless of their status or structural representation in any schema of the internal decomposition of the verb phrase, we might expect that they would involve an element which would constitute one kind of verbal head which would be capable of hosting the kind of incorporation-driving elements which are postulated in syntax-style decompositional approaches to denominals and deadjectivals.

Aspects of some existing characterisations of the underlying structures of copular clauses do in fact have the potential to rule out this kind of hypothetical incorporational copula in principle, as an incidental effect of the structure assumed for the copula. In the simplest case, finite copular clauses are considered by some to contain no verbal head at all. In this cluster of analyses, Tense in copular structures takes a small clause-like complement; a 'copula' does not as such exist, and the quasi-verbal elements to which this term is usually applied are in fact no more than vacuous supports for tense.

Another broad category in the analysis of copulas proposes that the copula, while having a separate existence in structure, is a distinct category (or one sub-instance of a certain distinct category). So, for example, for den Dikken (2006) a copula in the traditional sense spells out an instance of a so-called Relator head, which is not a canonical 'verb' yet establishes an asymmetry between subject and predicate. If a copula is taken as a unique and distinct category (or one instance of a very restricted category which has no other occurrence in finite clauses, as for den Dikken), it is plausible that, whilst preserving the very widespread capacity for denominal and deadjectival incorporation in verbal structures in general, this kind of operation could be ruled out solely for this special category (though without further specification this is, of course, a somewhat *ad hoc* suggestion). This would likewise apply to some, though not all, variants of the various "PredP"-type analyses of copular structures (cf. inter alia Bowers 1993; Svenonius 1994; Adger and Ramchand 2003).

A number of approaches to copulas do, on the contrary, consider them to be, or to include in a complex structure, verbal elements. Although assuming, with the PredP analyses mentioned above, that the projection of a special element (Pred) establishes the relation between subject and predicate (both in finite clauses and in small-clause-like structures, etc.), Mikkelsen (2004) assumes that copulas in some languages (basically, those in which some verb-like element is overt) involve the projection of verbal material. This material selects PredP, and is itself selected by T. For Mikkelsen this structural variation provides a means of encoding the difference

between languages in which a tensed element must be overt in finite copular clauses on the one hand (e.g. English and various other Germanic languages, French, etc.) and those in which no such element need appear on the other (including e.g. Russian, Arabic, Hebrew, and indeed the non-stative null-copula-like Akkadian construction). Mikkelsen proposes that, as a language-specific property, T in non-null-copula languages obligatorily selects a verbal complement, whereas T in null-copula languages is not thus restricted and can directly select PredP. In this analysis the overt 'copula' is the exponent of a special subtype of unaccusative verbal head (Mikkelsen's v_b), while Pred has, typically, no phonological realisation. As a species of unaccusative v_b has no external argument and does not assign accusative Case (instances in various languages of nominative marking on copular predicate nominals are taken to be an instances of default case); v_b differs from typical unaccusatives in that it selects Pred, not DP.

Lohndal (2006) proposes that copular structures are encoded as more or less canonical VP structures, with the verb-phrase structure [VP[XP]] or, in some cases, [vP[VP[XP]]], with the subject merged as external argument of VP/vP in the conventional manner. Lohndal's principal arguments for this analysis are subtle effects taken to suggest that copulas are in fact, contrary to common assumptions, involved together with predicates in theta-role assignment, and the variability in case values of predicate nominals in such languages as English and Norwegian NOM/ACC variation (though this is visible only on pronouns in specificational/inverse-predication structures, and could easily be a genuine instance of default case, as assumed by Mikkelsen 2004: 258-9) and Russian NOM/INST, together with various theory-internal considerations including issues of projection in Bare Phrase Structure.

If the structure of (some or all) copular clauses involves either a verbal head as such, or a Relator/Pred-like element not subject to the kind of divergent restriction we speculated about above (in other words, summarily, if copular structures involve some head which is distinct from subject and predicate and within whose complement domain the predicate originates), it seems initially plausible that we would expect the possibility of such a head which would permit incorporation of a predicate nominal.[46]

[46] A sort of unintended negative support for this thought has been expressed in the work of Benmamoun (2008) on Arabic 'verbless' copular clauses. Noting that there is variation in case-marking on copular predicates in Standard/Classical Arabic between 'null-copula' structures whose predicate is nominative-marked and 'overt-copula' structures in which it is accusative-marked (cf. vi), and that copular predicates in Moroccan Arabic can appear inside circumfixal negation where there is no overt

In the section we have engaged in an introductory discussion, with reference to Akkadian noun and adjective statives, concerning the possibility of their resulting from an incorporation-type process which would produce an interpretation similar to that of copular clauses. However, even before an attempt to formulate such an idea more closely, it is immediately clear that the matter cannot be quite so simple in the sense that it reduces to a more or less straightforward variant of the notion 'copula' with some syntactic peculiarities. The whole issue of verbal statives proper is one, though not the only, such complication. It is to these that we will now turn, before proceeding to an attempt to analyse the stative as a whole.

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copula, but may not where there is (cf vii), Benmamoun rejects a reviewer's suggestion that this could perhaps suggest incorporation to a null copula. The reasons for this rejection are twofold:

> "The reason this is not viable is because in instances where Case has been argued to be satisfied through incorporation, namely noun incorporation discussed in Baker 1988, the incorporated noun does not display the case-related morphology that it usually displays when it is not incorporated. In Standard Arabic, the predicate does display default nominative case and other inflectional markers, which raises doubt as to an incorporation account. Moveover, the predicate can undergo [wh-] movement as shown in [viii] […]" (Benmamoun 2008: 127-8 n. 13)

Thus, in the terms of the present study, an incorporational null copula analysis is rejected precisely because the relevant Arabic facts do *not* show exactly some of those properties which are most notable and surprising in Akkadian noun statives.

vi. a. *ar-rajul-u* *mu'allim-un*
the-man-NOM teacher-NOM
b. **ar-rajul-u* *mu'allim-an*
the-man-NOM teacher-ACC
"The man is a teacher"
c. *kāna* *r-rajul-u* *mu'allim-an*
was the-man-NOM teacher-ACC
d. **kāna* *r-rajul-u* *mu'allim-un*
was the-man-NOM teacher-NOM
"The man was a teacher" (Benmamoun 2008: 113, presentation slightly adapted)

vii. a. *'umar* *ma-mu'əllim-š*
PN NEG-teacher-NEG
"Omar is not a teacher."
b. *'umar* *ma-kan-š* *mu'əllim*
PN NEG-was-NEG teacher
c. **'umar* *ma-mu'əllim-š* *kan*
PN NEG-teacher-NEG was
"Omar was not a teacher." (Benmamoun 2008: 112)

viii. *m'a* *men* *nadya*
with who PN
"Who is Nadya with?" (Benmamoun 2008: 109)

3.2.2 Verbal Statives

As we reviewed in detail in sections 3.0 and 3.1, statives appear able to be formed on a verbal base as well as from nouns and adjectives; indeed, especially if all the types reviewed in basic discussion of 3.0.5 are considered 'verbal', statives which plausibly are of verbal derivation are by a large margin the most numerous in the data (though, as we argued above, a substantial subset of these with underlyingly 'stative' semantics almost certainly ought to be considered adjectival statives proper).

Of course, as we have seen, a continuing controversy has surrounded the extent to which almost all types of verbal stative could perhaps be reduced to adjectival predication. Simplifying slightly, the key subtype of verbal stative which has remained undecidable as to this question comprises the statives related to transitive verbs which produce passivisation of the underlying object to the subject in relation to the stative form. These are probably the predominant 'type' of verbal stative in the data. It is difficult, if not impossible, to definitely assign them on empirical grounds convincingly either to a verbal derivation or to the status of predications of adjectives.

It will be noted that the interpretation of this type of stative, and perhaps some other minor types of interpretation available to certain verbal statives, is strongly akin to the "adjectival passive" in English and various other languages. Adjectival passives are structures which appear to contain a participle which might appear to be participating in a regular passive verbal structure, but which in fact shows the syntactic behaviour of an adjective (cf. inter alia Levin and Rapaport 1986; Sleeman 2011). It of course a possibility that Akkadian passive-type statives are a closely analagous phenomenon, a view more or less explicitly adopted by Loesov (2005: 144) as the starting point of a diachronic "grammaticalization path" for the stative as a whole, and implicitly considered as the synchronic explanation of passive-type statives by proponents of the nominal-type analyses considered in section 3.1.2. If this were true, passive-type statives would be a subcase of the stative as a strategy of adjectival predication, however analysed.

Unfortunately the status of passive-type statives in this regard is very difficult to test. Two core interacting tests which have been taken to demonstrate the adjectival rather than verbal status of the "adjectival passive" are, first, the expression of an argument equivalent to the non-passive subject/external argument as an adjunct (as in an English *by*-phrase) is compatible only with verbal passives; second, adjectival

passives, but not verbs, are in some cases compatible with certain degree modifers such as English *very*; the interaction of these two restrictions creates incompatibility effects like those seen in (80). No equivalent of the expression of an "external argument" through a *by*-phrase occurs with passive verbs in Akkadian at all; degree modifiers of adjectives of the relevant kind are not discoverable.[47] Most other relevant tests, including embedding under AP-selecting verbs such as *seem*, and coordination with other adjectives (cf. McIntyre 2012), do not appear to be decidable with reference to available data, and in any case probably would not occur as such in Akkadian for independent reasons.

(80) a. The car was very damaged. [A]
b. The car was damaged by John. [V]
c. *The car was very damaged by John.

Two pieces of evidence do seem to bear on this question, though not perhaps conclusively. First, as in (40) repeated below, a limited set of passive-type statives whose active tensed verbal forms take two accusative-marked arguments can surface with one accusative-marked argument 'remaining' as such, the other promoted to subject. It is the norm for the promoted argument to be the logical direct object.

It has been shown that English cases like (81)c., which likewise relate to double-object structures like (81)a., cannot function as adjectival passives, despite being possible as verbal passives as in (81)b. (probably as a result of the general inability of adjectives to take direct DP complements). This sort of example is of course not directly comparable, as in (81)b-c. the underlying indirect object is promoted to subject, whereas the norm in the Akkadian cases is the reverse. Nonetheless the capacity of the 'passive' stative to support an accusative-marked argument corresponding to such an argument in the non-stative argument structure of the verb seems to speak against its adjectival status.[48]

[47] It is to be noted that *mādiš* 'very much' with a passive stative of a Š-stem in (ii) is a verbal modifier, which occurs both with statives and with tensed verbs; cf. CAD M1 18 s.v. *mādiš* a 2' for OB examples with various other statives and tensed verbal forms.

[48] Notwithstanding the obviously different phenomenon exemplified by the occasional attestation of 'adjectival-verb' statives with an accusative-marked cognate constituent, as in the following. This type of 'accusative of respect' not reflecting canonical argument structure as such has a significantly wider distribution in Akkadian:

(40) *kīma* *ṣubāt-am* *lā* *labš-āku* *ul* *t-īde*
that garment-ACC.SG NEG dress-STAT.SBJ:1sg NEG SBJ:2-know[SBJ:SG]
"Don't you know that I am not dressed in (any) clothes?"
AbB 14: no. 138, ll. 6-8 (Veenhof 2005).

(81) a. He gave the matter scant attention.
b. The matter was given scant attention. [V]
c. *The matter remained given scant attention. [A]

A further minor piece of evidence concerns the consistent form of the stative base in verbal statives active and passive as against the variable morphological patterning of what we have considered adjectival statives proper; we will thus conclude speculatively that it is more probable that passive-type statives are in their underlying status verbal rather than adjectival, in a manner which will be defined later. It must be emphasised that this is a tentative conclusion, the evidence being relatively thin, and in any case the proper answer to this question will not substantially affect the analysis to be pursued here.

Regardless of the status of these statives, at least one variety of 'verbal' stative can indeed be judged to be definitively verbal: the "active stative". Simplifying very slightly, the active stative can be essentially defined as a stative related to a transitive verb which does not undergo syntactic realignment of argument structure in the correspondence between stative and conventional tensed verb, and whose underlying object therefore surfaces (where morphologically possible) marked for accusative case, and in its normal surface position. This recalcitrant variety of verbal stative has resisted all descriptive attempts to subsume it under adjectival predication, even in those analyses which have most stridently attempted to "de-verbalise" the description of the stative phenomenon (cf. section 3.1.2 above); indeed, the active stative is the perhaps the most significant fact which such analyses unambiguously fail to explain, though by no means their only substantial weakness.

Some basic examples of the active stative have been given in section 3.0.5 above. As some of these do not show the accusative case-marking clearly, a few more

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ix. [X] *kabar* *u* *puṣ-âm* *peṣi*
(become_)thick.STAT.SBJ: 3ms and whiteness-ACC.SG (become_)white[STAT.SBJ: 3ms]
[What barley belongs to X field and Y field]
"is thick and white as to whiteness" [= 'whiter than white'?]
AbB 14: no. 58, l. 15 (Veenhof 2005).

examples are given below, also for the purpose of showing, in spite of the fact that the majority of examples of the active stative involve the verbs exemplified in 3.0.5 in fairly similar meanings, some of the additional potential for lexical and semantic breadth of the active stative. It will be recalled that at least some statives related to verbs which participate in the active stative phenomenon can also function as passive-type statives; in addition to the contrast quoted in 3.0.5, cf. (53) as against (83), and the contrast between the active stative related to the verb *walādum* 'give birth to' in (84) and the passive stative of the same verb in (85). Note that there is no overt morphological difference between these passive and active statives from the same roots/verbs.

(82) *ana* *aḫ-ī-šunu* *ṣeḫr-im* *ša* *ašš-at-am*
to brother.SG-GEN-POSS:3mpl small[SG]-GEN ŠA wife-FEM.SG-ACC
lā *aḫz-u*
NEG take[STAT.SBJ:3ms]-SBJV
"For their little brother who has not taken a wife."
Codex Hammurabi §166 (col. xxxiv/r.xi), ll. 64-67.

(83) *âm* *mala* *ina* *Kunn-im* *i-l<te>q-û* *{eql-(am)}*
barley.ACC as_much_as in PlN-GEN SBJ:3-<PERF>take-SBJV {field-(ACC.SG)}
{sulupp-(ī)} *{šamaššamm-(ī)}* *lū* *šaṭr-āku*
{dates-(MASC.PL.ACC/GEN)} {sesame-(MASC.PL.ACC/GEN)} EMPH write-STAT.SBJ:1sg
"I certainly have in writing the barley, as much as he has taken from Kunnum, the field, the dates, and the sesame." [in a letter concerning a dispute over such property and the production of records indicating its rightful ownership]
AbB 14: no. 34, ll. 12'-13' (Veenhof 2005).

(84) *šumma* *awīl-um* *warki* *ab-ī-šu* *ina* *sūn*
if man-NOM.SG after father.SG-GEN-POSS:3ms in lap[CSTR.SG]
rabī-t-ī-šu *ša* *{mār-(ī)}*
big-FEM.SG-GEN-POSS:3ms ŠA {son-PL(MASC.ACC/GEN)}
wald-at *i-t-ta-ṣbat*
give_birth(_to)-STAT.SBJ:3fs SBJ:3-PASS-PERF-sieze[SBJ:sg]
"If a man, after the death of his father, has been caught in the lap of his [i.e. the father's] superior wife, who has born sons/children […]".
Codex Hammurabi §158 (col. xxxiii/r.x), ll. 24-28.

(85) *anāku* *aḫ-ī* *tari-āku* *ah-ī*
I.NOM brother.SG-POSS:1ms lift(??)-STAT.SBJ:1sg brother.SG-POSS:1ms
ša *ana* *aḫ-ī-ya* ***wald-u***
ŠA to brother.SG-GEN-POSS:1sg give_birth(_to)[STAT.SBJ:3ms]-SBJV
"I am taking care of (?) my brother, my brother who was born to my brother (i.e. my nephew)."
CT 15 6 vii 3, as cited in CAD A1 289 s.v. *alādu* 1 a 1'.

At least two major considerations lead to the conclusion that the active stative cannot reflect adjectival predication. First, the active stative cannot be semantically related to the corresponding adjectives. In at least the overwhelming majority of cases, any verbal adjective corresponding to a verb participating in the active stative is consistently 'passive' in meaning. So the verbal adjective related to *šaṭārum* 'write' (stative in (83)) means only 'written/recorded' (cf. CAD Š2 241-2 s.v. *šaṭru*); a verbal adjective related to even such a common verb as *aḫāzum* 'take, choose' (stative in (82)) does not appear to exist at all in OB, and at best extremely marginally in other dialects; the verbal adjectives *maḫrum* and *ṣabtum* (cf. statives in (35); (36), (39)), themselves rare, mean only "received" and "captive; siezed, held" respectively. The verb *našûm* (cf. (37)), which means both 'lift up' (telic) and 'carry, have responsibility for' (atelic), and which is common as an active stative corresponding to the latter ('have on one's person, in one's possession/care'), has a rare corresponding verbal adjective which appears to mean only 'lifted, raised' of objects (cf. CAD N2 80ff.).

Second, it is generally true cross-linguistically that adjectives cannot support direct objects. The accusative-marked constituents in active statives express, not the types of semantic relations involved in the accusatives which surface in passive statives of the double-object type discussed recently, but true direct objects (in both the syntactic sense and the sense of 'logical object').

Thus the availability of at least some clearly non-adjectival 'verbal statives', including at least the active stative and quite possibly other 'verbal' statives in general, precludes the reduction of all instances of the stative to incorporation of the predicate of a copula.

3.2.3 Statives as Statives?

As we have seen, besides an inability to formulate a serious syntactic conception of the stative of nouns, the inability to bring together verbal statives on the one hand and noun and adjective statives on the other under some kind of unified syntactic analysis is the clearest shortcoming of the existing literature on the syntactic properties of the Akkadian stative. Although we have now ruled out the possibility that the Akkadian stative could uniformly result from the incorporation of a noun or adjective into some kind of verbal head, we have not ruled out the possibility (alluded to in very broad

terms in some of the formulations of section 3.1.3) that the stative, though derivable from a variety of 'lexical categories' including, in some sense, verbs, could nonetheless derive its common morphological, syntactic, and perhaps broad semantic properties from the involvement of a particular unitary aspect of their structure, perhaps a distinct type of head in a verbal structure.

The Akkadian stative, or any subtype thereof, is clearly distinct from the traditional linguistic category of *stative verbs* (which, for the sake of avoiding the obvious terminological confusion, we will henceforth call StatCl, i.e. the 'stative class' of verbs, any one of which we will call a StatCl verb). It is however worth examining some convergences and divergences between the two. StatCl is a semantic categorisation which takes in verbs expressing any type of state in the semantic sense (unchanging in its full duration). On the semantic characterisation it is clear that Akkadian statives uniformly express state, even where these are resultant states making reference to a telic event; nonetheless, Akkadian statives represent at best a subset of semantically state-expressing verbal predicates in the language in this sense; we will now briefly examine a few cases in which Akkadian verbal predicates expressing state appear outside the stative.

The traditional StatCl subsumes experiencer subject verbs such as *fear, love, respect*. The situation of such verbs in Akkadian is somewhat peculiar. Many such verbs, but not all, do occur in the stative, as exemplified below for statives related to *palāḫum* 'fear' (cf. also (44) above) and *takālum* 'trust'.

(86) *ana* *mīn-im* *palḫ-ātunu*
to what-GEN fear-STAT.SBJ:2mpl
"What are you afraid of?"
AbB 5: 245, l. 9 (Kraus 1972).

(87) *kīma* *aḫ-ū-ki* *palḫ-u* *ul*
that brother.SG-NOM-POSS:2fs fear[STAT.SBJ:3ms]-SBJV NEG
t-īdē
SBJ:2-know[SBJ:Msg].INTERROG
"Do you not know that your brother is afraid?"
AbB 7: no. 45, ll. 17-18 (Kraus 1977).

(88) *šunu* *mann-a* *palḫ-ū-ma* *lā* *i-šappar-ū-nim-ma*
they.M who-ACC fear-STAT.SBJ:3mpl-CONJ NEG SBJ:3-send.PRES-SBJ:Mpl-VENT-CONJ
"Who are they afraid of, such that they would not write to me, [and …]?"
AbB 3: no. 10, ll. 12-13 (Frankena 1968).

(89) *kīma* *ana* *{Marduk}* *takl-āku* *ana* *kâšum* *takl-āku*
as to PN trust-STAT.SBJ:1sg to you.DAT trust-STAT.SBJ:1sg
"As I trust Marduk, I trust you."
AbB 8: no. 99, ll. 7-8 (Cagni 1980).

(90) *[ull]ānu* *ana* *ab-ī-[y]a* *u* *bēl-ī-ya* *kâti*
[exc]ept to father.SG-GEN-POSS-1sg and master-GEN-POSS:1sg you.GEN
takl-āku *ana* *mann-i* *takl-āku*
trust-STAT.SBJ:1sg to who-GEN trust-STAT.SBJ:1sg
"Except that I trust my father and you, my master, who can I trust?"
AbB 1: no. 72, ll. 6'-7' (Kraus 1964).

Equally, most such verbs regularly appear with roughly equivalent interpretations (which are clearly 'stative' in the relevant non-Assyriological sense of this term) in the present-future tense form, and are in some cases attested as tensed verbs in this way significantly more frequently than as statives, though the corresponding statives are usually not uncommon. Detecting any subtle semantic difference between stative and present-future tensed verbal forms of this particular class of verbs is not easy, other than some additional and itself difficult to detect restriction of properties of temporal interpretation imposed by the latter. As will be noted by a comparison with the stative examples from *palāḫum* above and the present-tense instances quoted below, both the stative and non-stative forms are capable of being both intransitive and transitive.

Equally, there are at least some common verbs of this kind which do not occur in the stative at all, while occurring regularly in non-stative forms, such as, especially, *râmum* 'love' (cf. (94)-(95)). Conversely, a verb such as *takālum* 'trust', which we saw as stative above, seems not to occur in the present tense, or only with extreme rarity, in core OB;[49] past-tense examples seem possible to interpret as non-state-expressing in some sense ('put one's trust in (on a single occasion)'), cf. e.g. (96).

(91) *u* *atta* *ṭuppa-ka* *ul* *tu-š-abbal-ma*
and you.M.SG tablet.SG-POSS:2ms NEG SBJ:2-CAUS-bring.PRES[SBJ:Msg]-CONJ
ul *i-pallaḫ-ū*
NEG SBJ:3-fear.PRES-SBJ:Mpl
"And when you don't have your tablet brought, they are not afraid."
AbB 10: no. 16, ll. 12'-13' (Kraus 1985).

[49] Cf. CAD T 65 s.v. *takālu* 1 c 2' for a Mari OB example of the present tense.

(92) *ana* *ašariš* *wašāb-im* *ul* *ta-pallaḫ*
to there dwell.INF-GEN.SG NEG SBJ:2-fear.PRES[SBJ:Msg]
"Do you not fear to live there?"
AbB 14: no. 40, ll. 20-21 (Veenhof 2005).

(93) *u* *mimma* *lā* *ta-pallaḫ-ā*
and anything NEG[IMPV] SBJ:2-fear.PRES-SBJ:PL
"And do not fear anything."
AbB 14: no. 23, ll. 14-15 (Veenhof 2005).

(94) *šumma* *ta-ramm-ā-ninni* *š-ūbil-anni*
if SBJ:2-love.PRES-SBJ:PL-ACC.1sg CAUS-bring.IMPV-ACC.1sg
"If you love me, have (it) brought to me!"
AbB 14: 22, ll. 13-14 (Veenhof 2005).

(95) *isḫ-ā-ka* *ina* *{Ebabbar}* *ša* *ta-ramm-u*
arm-DUAL.NOM-POSS:2ms in PlN ŠA SBJ:2-love.PRES[SBJ:Msg]-SBJV
lū *dari-ā*
PREC eternal-STAT.SBJ:3fpl
"May your arms be forever in Ebabbar [name of a temple], which you love."
AbB 2: no. 89, ll. 7-8 (Frankena 1966).

(96) *u* *aššum* *alp-im* *a-tkal-ak-kum-ma* *alp-am*
and about ox-GEN.SG SBJ:1sg-trust.PRET-VENT-DAT.2ms-CONJ ox-ACC.SG
ul *a-šām*
NEG SBJ:1sg-buy.PRET
"And about the ox: I trusted you, and did not buy the ox."
AbB 11: no. 185, ll. 28-30 (Stol 1986).

At least one such verb, *idûm* 'know', has further peculiarities. Unlike the verbs discussed immediately above, it is inflectionally defective in that it shows no tense distinctions (and additionally cannot form a morphological imperative). Nonetheless its normal forms show the subject agreement morphology which is shared by all tensed verbal forms, as opposed to the entirely separate subject agreement paradigm associated with the stative. Examples are given below; cf. also (87) for an further instance.

(97) *ul* *ta-ḫammuṭ-ā-nim-ma* *lū* *t-īde-ā*
NEG SBJ:2-hasten.PRES-SBJ:PL-VENT-CONJ EMPH SBJ:2-know-SBJ:PL
"Don't hasten here and you will know it!"
AbB 14: no. 124, l. 22-23 (Veenhof 2005).

(98) *ēma* *ṭupp-ū* *šunu* *šakn-ū*
where tablet-MASC.NOM.PL those.MASC.NOM put-STAT.SBJ:3mpl
ul *n-īde*
NEG SBJ:1pl-know
"We do not know where those tablets are deposited."
VAB 5: no. 281, ll. 31-2 (Schorr 1913).

idûm has no stative as such. An irregular derivative *mudû* is both an adjective (roughly 'aware (of)', regularly taking a genitive complement as in (99)) and a noun (roughly 'knowledgeable one, expert'). The 'derivational morphology' of *mudûm* resembles that of 'participles'/agentive nouns formed from 'derived stems', but not from the basic form/G-stem of the verb, to which *idûm* appears to correspond.[50]

Very rarely, however, statives of *mudûm* (whose stem corresponds morphologically to no normal verbal stative form) occur, as in (100) below, already quoted in ch. 1. Note that this stative supports a preceding 'infinitive' complement in a verbal-type syntactic structure. In the absence of much data on this topic it is difficult to determine if this stative of *mudûm*, supporting at least some aspects of argument-taking potential in verbal syntax, is in some sense classifiable as a 'verbal stative' related to the (vastly more common) non-stative forms of *idûm*.

(99) *šumma* *bēl* *ḫulq-im* *šīb-ī*
if owner[CSTR.SG] lost_thing-GEN.SG witness-MASC.PL.ACC/GEN
mude *ḫulq-ī-šu* *lā* *i-t-bal-am*
aware[CSTR.SG] lost_thing-GEN-POSS:3ms NEG SBJ:3-PERF-bring-VENT
"If the owner of the lost thing has not brought witnesses aware of his lost thing […]"
Codex Hammurabi §11 (col. vii), ll. 62-65.

(100) *našpar-ī* *dann-am* *lā* *anīḫ-am* *ša* *bibil*
envoy-POSS:1SG strong[SG]-ACC NEG tired[SG]-ACC ŠA desire[CSTR]
libb-ī-ya *ana* *ašr-im* *šakān-am* *mud-û*
heart-GEN-POSS:1SG to place-GEN.SG put.INF-ACC aware?-STAT.SBJV
"My strong, untiring envoy who knows how to achieve what I want" ("put in place the desire of my heart").
RIME 4: Samsu-iluna E4.3.7.7, ll. 31-35 (Frayne 1990: 386).

[50] *idûm* does form such derived stems, such as the causative *š-ūdûm* 'make known' in x. and xi., which are not subject to the morphological peculiarities of the G-stem.

x. *šumma* *{kalb-(um)}* *šegī-ma* *bāb-t-um*
if {dog-(NOM.SG)} wild[STAT.SBJ:3ms]-CONJ district-FEM.SG-NOM
ana *bēl-ī-šu* *u-š-ēdī-ma*
to master-GEN-POSS:3ms SBJ:3-CAUS-know.PRET[SBJ:SG]-CONJ
"If a dog is rabid, and the district made (it) known to its owner, [and …]"
LE §56 [A iv 20-21] (Yaron 1988: 78).

xi. *[in]a* [?] *maḫar* *šīb-ī*
in [?] presence[CSTR.SG] witness-MASC.PL.ACC/GEN
š-ūdi-ā-šunūšim
CAUS-know.IMPV-SBJ:2pl-DAT:3mpl
"Make (it) known in the presence of witnesses."
AbB 14: no. 75, l. 34 (Veenhof 2005).

Generative analyses of the StatCl commonly assign copulas to this class, considering a copula to be subtype of StatCl verb (cf. e.g. Hale and Keyser 2005; Ramchand 2008: 34, 106-7). Setting aside for the moment the complexities suggested by the fact that prototypically StatCl verbs in Akkadian can, and in a few cases must, appear not in the stative but in regular tensed forms, it therefore seems plausible that Akkadian verb phrase structure hosts a head which both has the potential to host inherently 'stative verbs' and can additionally *stativise* verbs with various types of event structure, as well as incorporate nouns and adjectives.

3.2.4 Structural Variety and Structural Unity in the Stative

Having made this suggestion in the abstract, in this section we will explore the outline of what such a view of the Akkadian stative would imply, beginning with the simplest types of the Akkadian stative and proceeding through its more complex and involved cases. Along the way we will explore the implications certain details of the properties some of these types of statives have for such a proposal.

3.2.4.1 Noun/Adjective Statives

Suppose that the unitary element in the Akkadian stative is a particular kind of head in verbal structure expressing state. It seems natural to assume that such an element, though not specifically 'copular', would (following the spirit of the view of Ramchand (2008: 106) that a stative copula such as English *be* constitutes an "encylopaedically impoverished" instance of a stative verb) produce the appropriate interpretation were its complement nominal or adjectival, without the presence either of any more complex verbal structure or any more semantically specific 'stative verb'.

We must at this point argue more explicitly that a noun stative cannot be derived by the insertion directly under a stative verbal head of a minimal acategorial root, in the sense of Distributed Morphology (cf. Halle and Marantz 1993; Acquaviva 2008; Harley 2011); the insertion of a root in this sense into a verbal categorising structure is taken by some to underlie certain verbs regarded by alternative analyses as incorporation-derived denominals, as in the revised analysis of "denominal" unergatives such as *dance* by Hale and Keyser (2002: 98; 2005). Certain theories of lexical categorisation not only regard roots as uncategorised, but propose that

categorisation is not associated with any class of special categorising heads as postulated by DM-inspired approaches (typically notated as 'little *x*'), by which the root is categorised immediately on insertion. For example, Borer (2005) and de Belder and van Craenenbroeck (2011) propose that the category of a root in a particular derivation is determined as an effect of the functional structure which is merged above it. Thus, for such theories, any cross-categorial process (e.g. the formation of denominal verbs) will typically result from the insertion of the root directly into 'verbal' functional structure.

It might seem that the morphological properties of the noun stative (loss of all nominal-type affixal morphology including number and gender) might support such a derivation from a minimal, uncategorised form. However, certain facts seem to speak against this view.

If, as some theorists propose, we posit a partial or complete overlap between the theoretical notion of an acategorial lexical root and the concept of the "consonantal root" in Semitic languages (cf. Arad 2003; Harley 2011), we can detect certain relevant facts. Even if this is not the case, we can demonstrate that the input to the 'stativisation process' of noun/adjective statives is more complex that the input to a different sort of denominal/deadjectival category-changing process.

In noun and adjective statives, the phonological form of the stative base is unambigously the unaltered stem of the noun/adjective. No noun/adjective statives are known which show any transformation of internal vowelling or other phonological properties of the stem. So all noun stative stems correspond exactly to the stem of the noun, and in certain cases (such as those of *šarrāq-* or *muškēn-*) this form corresponds to no known 'verbal' or 'adjectival' derived pattern. This is at variance with verbal statives related to other than 'adjectival verbs' (thus including all 'active statives'), which have a uniform and special root-pattern form in the stative, CaCiC- (*paris-*), which is plausibly a morphological reflection of our 'stative head' where an element is inserted into it whose internal vowelling is yet to be determined.

It is to be noted that deadjectival and denominal verbs in a more 'normal' sense do occur in Akkadian, though are rare in clearly detectable cases (except, of course, for the so-called 'adjectival verbs', which if indeed deadjectival in this sense form a very large class). They include pairs such as the following; it will be noted, crucially, that the internal phonological structure of the adjective or noun is rewritten as a result

of the verbalisation, and can vary for inflectional alterations undergone by verbs in general.

(101) a. *ešš-um* 'new' ~ *uššuš-um* 'to renew, make newly' (pret. *-ušših-*)
b. *upl-um* 'louse' ~ *uppul-um* 'to delouse'

Thus, whatever the exact structural nature of 'categorisation', we must assume that the element which underlies the 'verbalisation' process of this type is in some sense less determined than that which participates in noun or adjective statives; therefore, we must assume that something like a 'categorised' noun proper underlies the noun stative, and likewise for adjectival statives. Summarising, first, 'verbal statives' proper have a consistent internal vowelling pattern which seems to be unique to the stative amongst verbal forms, thus plausibly associated with the element underlying the stative. Second, deadjectival and denominal verbs which are not statives, as in (101), do have their internal vowelling overwritten, perhaps suggesting that these do derive from an acategorial root, or at least from some less 'determined' form that that which underlies noun statives. Third, the stem of noun/adjective statives is never altered morphologically relative to the corresponding noun, in this or any other way. Thus, even if the notions 'acategorial root' and '(Semitic) consonantal root' are not closely associated, a stronger "determination as noun" underlies the stem in noun statives than underlies other denominal verbs, likewise for adjectives. Fourth, no arbitrariness of semantic correspondence between noun/adjective *per se* and noun/adjective as stative is detectable.

Having concluded that the noun stative must originate as a 'categorised noun' in syntax, we should return at this point to the most striking evidence of the verbal syntactic properties of noun statives in particular, which we reviewed in section 3.1.4.4. This concerns the rare occurrence of noun statives of relational nouns with their pseudo-arguments realised as PPs, as in (69), repeated below.[51]

[51] These pseudo-arguments of relational nouns are, naturally, optional, as is generally true cross-linguistically (with certain semantic/pragmatic restrictions; cf. Adger 2013: 53-5); in Akkadian, for both the noun as such and statives derived from them, the pseudo-argument is optionally realised, at least where the interpretation is non-specific. (4), repeated below, shows this for both SR and stative of *aššatum* 'wife'.

(69) *Narubtum* *{mār-(at)}* *Annu[…]*
PN {daughter-(FEM.SG[CSTR])} PN [end broken]
ana *{Il}šu-ibnīšu* *ašš-at* *ana* *Beˀlēˀtum* *am-aˀtˀ*
to PN wife-STAT.SBJ:3fs to PN female_slave-STAT.SBJ:3fs
"Narubtum daughter of Annu[…] is wife to Ilšu-ibnīšu, she is slave to Belētum."
van Lerberghe (1986: no. 87, ll. 12'-14').

As we noted in the prior discussion of such examples, these instances are unambiguously characteristic of verb phrase syntax. The PP precedes the noun, which is characteristic of verbal structures in Akkadian, while the reverse order applies in nominal structures; furthermore, these pseudo-arguments of relational nouns are expressed in nominal structures as genitives/possessors, but with noun statives as PPs. Adding this to the barring of all other aspects of overt nominal syntax and affixal morphology, and the participation in subject agreement, we must conclude that although the noun stative must be nominal in terms of the category of its stem, it must clearly be embedded in a verbal syntactic structure.

Let us therefore summarise our ideas at this stage concerning the underlying structure of noun statives (and adjectival statives, *mutatis mutandis*). A stative verbal head (call it v_{stat}) is taken to underlie the Akkadian stative in general. The noun originates as complement to this head, as a minimal structure, either primitively so (in a theory not admitting 'roots' in the DM sense in syntax) or as a minimally categorised word consisting only of 'root' and specialised categorising element (somewhat analagously to the root/categorised-stem division proposed by Arad (2003), in whose view both can be inputs to further recategorisation in syntax, but the latter have some additional properties of morphological immutability and interpretational non-arbitrariness when subjected to such processes). This minimal noun incorporates to the stative head in essentially the terms of Hale and Keyser (1993).

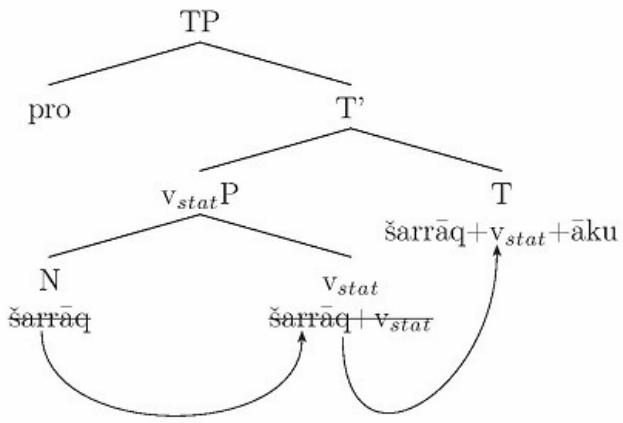
---

(4) *šumma* *awīl-um* *aššat-am* *ī-ḫuz-ma*
if man-NOM.SG wife-FEM.SG-NOM SBJ:3-take.PRET[SBJ:SG]-CONJ
riks-āt-ī-ša *lā* *i-škun*
agreement-FEM.PL-ACC/GEN-POSS:3fs NEG SBJ:3-put.PRET[SBJ:SG]
{sinniš-(t-um)} *šī* *ul* *aššat*
{woman-(FEM.SG-NOM)} that.FEM NEG wife-STAT.SBJ:3fs
"If a man took a wife and did not put in place her agreements, that woman is not a wife."
Codex Hammurabi §128 (col. xxviii/r.v), ll. 35-41.

Wider nominal syntactic structures (modifiers, etc.) are probably thus barred in line with the general properties of incorporation of nominals to verbal heads in this sense. In any event, the Case requirement of the noun having been satisfied, or nullified, as a result of incorporation (as in the classical formulation of Baker 1988: ch. 3), most 'stranded' material inside the very reduced nominal structure will probably fail to be realisable as a result.[52] As an incorporated head, the noun in question cannot be referential. This derives naturally the apparent restriction of noun stative predicates to ascriptive/predicational interpretation identified by Kouwenberg (2000). We furthermore derive the noun stative's properties of radical morphological and syntactic bareness without difficulty. A 'stative complex' having been formed we assume (though see the comments on tense and the stative in the following section) that for the purpose of hosting the subject agreement suffixes it further moves to T. Thus a tree diagram for (102), equivalent to the stative clause in (3), can be given as (103), abstracting over movement of the subject.

(102) *šarrāq-āku*
thief-STAT.SBJ:1sg
"I am a thief."

(103)



[52] As we have previously noted, the affixal emphatic morpheme *-ma*, which appears at the right edge of various non-verbal phrases, is not available to statives, only to SR nominals. It is beyond the scope of this study to consider the function and nature of this *-ma* in detail; since its relevant syntactic behaviour patterns with other elements of complex nominal/adjectival syntactic structure it seems plausible to treat it as an element in the high functional structure of the relevant projections; it would thus be ruled out in noun and adjective statives for the same reasons as other extended structures associated with these categories. Alternatively, since *-ma* seems to be unique in its clause in all the data which has come to my attention, it could be associated with the kind of information structure encoding typically assigned to the clausal left periphery, hence necessitating a kind of A'-movement or equivalent, which would be unavailable to statives/predicates headed by statives if obligatorily sited in T; yet analysing it in this way would at best be somewhat involved, since *-ma*-marked constituents do not appear, on the surface, to be displaced.

3.2.4.2 Verbal Statives

In the preceding section, we proposed the existence of a specific stative light verb as the consistent element underlying the various subtypes of the stative phenomenon in Akkadian, which was taken to be capable of selecting nominal and adjectival complements. As part of, let us assume, the extended structure of vP, it might thus be expected to be capable of embedding verbal structures as well as the nominal/adjectival material already discussed. As we have seen throughout this chapter, this seems to be precisely what indeed happens. In this section we will examine in outline the implications of such a view for the syntactic analysis of verbal statives, and will also deal with some broad remaining issues with such an analysis of statives.

We must note at the outset that verbs of various kinds occur in the stative, certainly not restricted to verbs which are in any sense inherently state-encoding semantically. This leads us to consider the question of how such statives are represented. We could propose as a maximally simple hypothesis that our stative head is simply one of a number of alternative, mutually exclusive types of *v*, in a theory in which *v* is a singular projection with various subtypes (as for Folli and Harley 2005); not dissimilarly, for Ramchand (2008: 106-7) StatCl verbs are a special set of items which can fill the head of the highest *v*-equivalent projection in her theory of verb phrase decomposition (Ramchand's *init*, essentially akin to the causative/agent-introducing *v* of other theories). This sort of proposal, however, runs into great difficulty accounting for a number of facts, the most important of which we will now consider.

We have already seen that verbal statives are regularly derived from process/event verbs of various kinds, including both passive and active transitives. If we make standard assumptions concerning the underlying structure of transitive verbs, in which transitivity is mediated by a superordinate verbal head (*v*), it is difficult to reconcile this with what appears to be a separately represented 'stativisation' which produces an interpretation relevant to the resultant state of an apparently already articulated transitive verbal structure.

We can also establish this point more firmly on empirical grounds internal to Akkadian. Statives can occur which correspond to at least some of the so-called 'derived stems', to use the traditional terminology, of verbs. These derived stems,

close analogues to which occur in most Semitic languages, reflect by morphological alterations various semantic alterations relative to the G-stem (*Grundstamm*, or morphologically basic form of the verb), most typically transformations of argument structure of various kinds or event structure properties. So, for example, the Akkadian "Š-stem", whose most basic characterising surface feature is the prefixing of *š-*, is typically a causative; the D-stem, characterised by gemination of the second radical consonant, has various semantic properties relative to the G-stem, including that of a transitivising causative of inchoative verbs; the N-stem (prefixing of *n(a)-*) is typically, amongst certain other possibilities, passivising.

At least D-stem and Š-stem statives are clearly productive. They are generally passive. These statives are fairly uncommon in comparison to G-stem statives, but do not appear to be subject to any special restrictions. Like the G-stem the form of the stative base is shared with the relevant 'verbal adjective'; however, in these derived stems the stative stem shares its form with the stem of a more general set of non-finite forms, including not only the verbal adjective but the 'infinitive' (in contrast to the G-stem, in which only the verbal adjective stem and the stative stem coincide in form). A variety of examples of D- and Š-stem statives are given below.

(104) *aškapūs-sinā-ma* *uḫḫur-at*
leatherwork-POSS:3fpl-EMPH be_late.Dstem-STAT:SBJ:3fs
"Their leatherwork, however, is delayed."
AbB 14: no. 55, ll. 34-35 (Veenhof 2005).

(105) *libba-[šu]* *ṭūb*
heart-[POSS:3ms] (become_)pleased.D-stem.STAT:SBJ:3ms
"[His] heart was satisfied (made-pleased)."
Al-Rawi and Dalley (2000: no. 118, l. 7)

(106) *u* *it-âm* *ša* *{kir-(îm)}* *ša* *i-bašš-û*
and boundary-ACC.SG ŠA {orchard-(GEN.SG)} ŠA SBJ:3-exist.PRES-SBJV
išar-iš *ul* *kullum-ānu*
correct-ADV NEG show.Dstem-STAT.SBJ:1sg
"And we have not been correctly shown the boundary of the orchard that exists (at the moment)."
AbB 14: no. 91, ll. 28-29 (Veenhof 2005).

(107) *Enlil* *ša* *bēl-ū-s-su* *ina* *il-ī*
PN ŠA master-ABSTR-FEM.SG-POSS:3ms in god-MASC.PL.ACC/GEN
šu-rb-ât
CAUS-(become_)big-STAT.SBJ:3fs
"Enlil, whose lordship is elevated (lit. ~"aggrandised") among the gods."
RIME 4: Samsu-iluna E4.3.7.7, ll. 1-2 (Frayne 1990: 385).

We can furthermore show that causatives which we have good reason to believe are constructed from adjectives, or state-denoting 'roots', may be 'stativised'. Recall that we have argued that statives associated with so-called adjectival verbs/roots represent 'stativisation' of the relevant adjective, and are not 'verbal statives'. Accepting this entails the conclusion that the tensed verbal forms which correspond to these adjectives partake of a complex underlying structure, probably involving inchoative and/or causative verbal projections.

Take, for example, the adjective *raṭb-um* ('damp, moist', SR form in (109)), which seems to have no attested corresponding G-stem verb, but does as an adjective appear in the stative, as in (108). There is however a D-stem causative ('dampen, moisten'), as can be seen in a non-stative verbal form in (110) and the stative in (111). Regardless of whether this causative verb is adjective- or 'root'-derived, it necessarily must involve a causative verbal structure of some kind, which is further 'stativised' in the form of the D-stem stative.

(108) *[amr-û?-y]a* *raṭb-ū*
[beam-MASC.NOM.PL?]-POSS:1sg damp-STAT.SBJ:3mpl
[I am having a ship built and]
"My [beams?] are damp." [cf. (109) for restoration following AbB 3]
AbB 3: no. 56, l. 9 (Frankena 1968).

(109) *[a]m[r]-ê* *kīma* *amr-ê*
beam-MASC.PL.ACC/GEN like beam-MASC.PL.ACC/GEN
[r]aṭb-ūt-im *l-u-tēr*
damp-MASC.PL-ACC/GEN PREC-SBJ:1sg-return.Dstem
"I will substitute beams like the damp beams."
AbB 3: no. 56, l. 24 (Frankena 1968).

(110) *{eql-(am?)}* *mê* *l-i-raṭṭib-ū*
{field-(ACC.SG?)} water-ACC/GEN PREC-SBJ:3-damp.Dstem-SBJ:3mpl
"Let them make the field damp with water!"
AbB 10: no. 170, l. 15 (Kraus 1985).

(111) *mê* *a-š<ta>pak* *ruṭṭub*
water-ACC/GEN SBJ:1sg-<PERF>pour[SBJ:sg] damp.Dstem.STAT.SBJ:3ms
"I have poured on water. It is dampened."
AbB 14: no. 60, l. 6 (Veenhof 2005).

The 'derived stems' are also morphologically transparent. The characteristic feature of the D-stem, for example, is gemination of the second radical consonant,

which appears without exception in all D-stem forms.[53] The internal vowelling patterns vary (as between the stative/adjective/infinitive form *purrus*-, the participle/agentive noun *mu-parris*-, the preterite stem *-parris*, the present tense stem *-parras*, and the imperative *purris*-). Gemination, therefore, is 'primitive' in the D-stem, whereas the vowelling pattern is subject to further inflectional processes. Furthermore, these variances in vowelling patterns are repeated exactly in the Š-stem (stative/adjective/infinitive *šuprus*-, participle *mu-šapris*-, preterite *-šapris*, present *-šapras*, imperative *šupris*-), although the 'primitive' characterisational element of the Š-stem is both different from that of the D-stem and results in a different relative linear distribution of root consonants and inflectional vowels. It therefore appears, taking the D-stem as an example, that these derived-stem statives are built on something like a minimal D-stem form characterised, perhaps, by the presence of whatever single feature or complex of features is basic to the D-stem (realised as gemination of the second radical consonant), but devoid of or possessing some neutral specification of features beyond that which determines that the stem be a 'minimal instance' of the D-stem (with regard to complexity of the 'input to stativisation' it may be, therefore, that derived-stem statives should be seen as a variant case of the same kind of facts which were outlined regarding noun and adjective statives). At any rate, it is additionally clear from morphological evidence that whatever element constitutes the base of derived-stem statives must include not only a minimal 'root' or primary verb but also (whatever its character may be) a "D-stem feature", and so on, in addition.

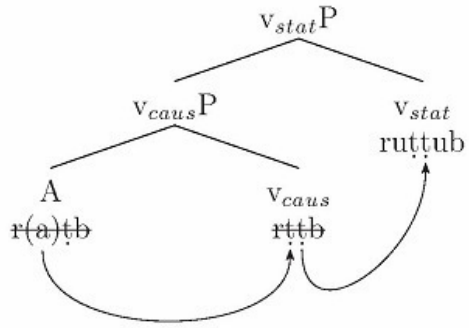
As such, the verbal stative is capable of embedding, for example, causatives, of a productive and morphologically transparent kind, to which it seems impossible to assign any kind of 'lexically primitive' status, regardless of the exact details of their formation. Assuming that these types of verbs are assigned any kind of complex underlying structure in syntax, we must conclude that the proposed stative light verb can embed complex verbal structures.

Since it can embed verbal structures which are themselves, for example, causative (which can themselves be built on top of adjectives as in (111)), we must assume that the stative light verb is at the top of an extended verbal projection in which it appears. This would lead to a structure very similar to that shown in (103),

[53] Except, for independent reasons, in the case of roots with 'weak' consonants in the relevant position, where 'D-stem-ness' is consequently reflected in vowel quality; cf. (105) above.

except that the stative would be derived by successive head-to-head movement (or equivalent) between verbal heads, and arguments would be introduced in the more complex ways typical of verbal projections. Thus we assume that in a case like *ruṭṭub* in (111) the adjective is the complement of a causative verbal head, and becomes a deadjectival D-stem causative by incorporation to the latter; the underlyingly complex stative is produced when v_{stat} takes a structure like this as its own complement in a multi-layered verbal structure, as shown schematically in (112).

(112)



A couple of broad issues remain. The Akkadian stative is incompatible, unlike non-stative verbal structures, with tense-marking. Akkadian possesses no tense-marking auxiliaries or affixes which are not phonologically represented by variations in the internal vowelling patterns of verbal forms. If, as we have speculated, the stative head itself either takes as its 'input' a form whose spelt-out phonological shape is already fully determined, or has a default pattern imposed by the stative head itself where this is not the case, the phonological shape might necessarily turn out as multiply determined, hence impossible to spell out, if specified also for tense.

Alternatively, we could assume that absence of tense-marking for the stative is a variant of restrictions on the interrelation between StatCl verbs in some languages and marking of certain aspectual properties. So, in English, StatCl verbs are generally incompatible with progressive aspect:[54]

[54] The use of progressive aspect with many stative verbs does appear to be becoming more acceptable in colloquial English, so that many speakers accept examples like (xii) and (xiii). Nevertheless, at least with some verbs, the effect remains strong for most speakers, as indicated for *know* in (114).

(xii) I'm liking this bar.
(xiii) I'm loving it now.

(113)a. He fears all large mammals.
b. ??He is fearing all large mammals.

(114)a. He knows John.
b. He knows that John lives here.
c. *He is knowing John.
d. *He is knowing that John lives here.

It is plausible that the phonologically represented Akkadian 'tenses' are in fact exponents of tense+aspect in surface-unitary morphological formatives [55] (phonologically discontinuous in some cases, but regarded as a single item for spell-out purposes). If this is the case, and the relevant aspect specifications are incompatible with the stative light verb (either for semantic reasons or by syntactic selectional properties), only null Tense would be capable of being associated with statives. In either case, we would appear to be able to account for the absence of overt tense without great difficulty.

The mention of StatCl verbs in general leads us on to another significant issue which we have yet to comment on, namely the ability of some verbs which are semantically 'stative' in this sense to appear not only in the stative but also in (at least) the present-future 'tense' with reference to state, as discussed in section 3.3.3. Given the difficulty of judging these nuances in certain instances it could be that many of these cases do express change-of-state in some way ("you will come to fear", etc.), but clearly not all do; in particular, the data cited in 3.3.3 on *palāḫum* 'fear' and the defective *idûm* 'know' show, in my view, at least some clear cases when examined in context where the only reference can be to ongoing state. Some of these verbs also occur in the 'stative' proper, but not all do; besides the somewhat involved case of *idûm*, the notable example discussed in 3.3.3 was *râmum* 'love'.

An explanation for these puzzling and nuanced facts is not easy, and will not be pursued in detail here given that our primary focus in not on verbal structures or

[55] The exact semantics of the Akkadian 'tense' distinctions are highly controversial in themselves, and engaging in a serious excursus on their possible aspectual properties would take us well beyond the boundaries of our topic. See Kouwenberg (2010: 88-160) for a recent study, with references. Kouwenberg terms the traditional 'present' and 'preterite' an "imperfective" and "perfective" respectively, with the traditional 'perfect' (a.k.a. *t*-perfect) a secondary aspectual type of some sort. The "imperfective" he proposes "combines temporal, aspectual and modal functions, but its aspectual function is marginal"; the "perfective" by contrast "indicates past tense, perfective aspect, and realis mood, but in practice has the value of a simple past tense"; in other words, in this view, tense is primary but aspect is also implicated in the three-way morphological 'tense' distinction (Kouwenberg 2010: 91, 127).

verbal meaning. One obvious possibility is that 'state' in the sense of StatCl verbs and 'stative' in the sense encoded by the Akkadian stative are not identical categories, in a way which would have to be defined more closely, and that these two categories may but do not necessarily overlap. If this is not true, on the other hand, one possible direction does suggest itself *if* we accept something like our first explanation of the lack of tense distinctions in the Akkadian stative (that it results from spell-out failure): suppose that, in some sense, the StatCl verbs inherently ('lexically' in whatever sense) bear some feature encoding stativity, which is therefore, say, spelt out by the verb's/root's radical consonants, such that, avoiding redundancy, the stative light verb does not itself get spelt out by the default vowelling pattern for G-stem verbal statives (CaCiC). This is hardly theoretically ideal, of course, but might have certain loose parallels in, for example, alternative spell-out of deadjectival verb heads relative to the adjective involved (cf. *clear, cool* against *prettify, enlarge*). This would still require the StatCl verb to be compatible with null tense/aspect (resulting in a stative of, say, *palāḫum = pal(i)ḫ*) in addition to overt tense/aspect (producing tensed forms e.g. *-pallaḫ*). These issues are clearly involved, and are beyond our compass.

Obviously, a fuller elaboration and defense of the assignment of this structure, or one similar to it, to verbal statives would require a much more extended argument, taking in many subtleties of event structure properties, and so on, of a kind that is beyond the scope of this thesis, in which the focus is on nominals in their interaction with this and other phenomena. Nonetheless, such an approach does explain the major facts of the syntax of the verbal stative outside the detailed internal properties of the verbal projections they embed; as such, there is good reason to hope that it provides a starting point for potential future syntactic research which could interface modern work on VP structure and its relation to event structure with some of the semantic micro-analysis of verbal statives which has been pursued in a limited number of works on the stative in the Assyriological literature, including especially Rowton (1962) and Loesov (2012).

3.3 Conclusion

In this chapter we examined the OB stative with a view to accounting for its puzzling properties as a predicative structure for radically morphologically and syntactically impoverished nouns. Through an overview of the major Assyriological work on the

syntax of the stative and the examination of many of the detailed morphological and syntactic facts of the stative phenomenon, we concluded that the stative is verbal in its syntactic structure, proposing that its across-the-board 'verbal' properties derive from its representation in syntax by a specific type of state-encoding light verb; this light verb, in combining with a variety of syntactic structures, produces not only a special category of stative verbal predicates derivable from a variety of variably complex verbal structures, but is also capable of incorporating adjectives and nouns.

This incorporation of nouns produces a nominal form even more severely 'reduced' in relation to the typical phrasal and morphological structure of nouns than the phenomena we have thus far examined. Again, however, the phenomenon of Case seems to be implicated in the restricted distribution of these radically bare occurrences of nouns: as with incorporational denominal verb structures generally, the noun in question is licensed by this incorporation, not by the subsequent acquisition (/checking/valuation/etc.) of Case features. As such, the nominal structure from which the incorporated noun originates must be limited to the minimal noun itself, as a (stranded) extended structure cannot be supported in the absence of the feature which would license such a structure, here assumed to be Case. To this extent there is a substantial commonality between noun statives and CHRCs: thanks to the presence of a syntactic process by which nouns may be 'licensed' in the absence of Case or other features of extended nominal structure, nouns may appear in a severely syntactically and morphologically impoverished form (and only in such a form) in the context (and only in the context) of the application of the particular structural conditions which give rise to these processes.

There are, however, significant divergences between the properties of noun statives and CHRC heads. The noun stative is morphologically 'reduced' to a greater degree than the CHRC head, at least in terms of the absence of gender-marking, which is obligatorily preserved in CHRC heads. Additionally, noun statives are necessarily non-referential, whereas CHRC heads can be interpreted referentially, in the context of a restrictive relative clause.

4 Conclusion

4.1 Overview

This thesis has considered the three main environments of reduced nominal structure in Old Babylonian Akkadian. As we have discovered through close examination of each of these phenomena, the degree of structural impoverishment varies substantially between them.

In chapter 3, we examined a phenomenon in which a noun approached the limits of structural reduction. We showed that the noun stative head is incorporated into a verbal syntactic structure, and by nearly every syntactic diagnostic behaves, like other stative heads, in a way strikingly and consistently analogous to other verbal predicates in the language. Nonetheless, in contrast to more conventional types of denominal verbs in the language, the noun stative retains its phonological shape and, apparently, its interpretive stability relative to the noun from which it is formed. This suggests strongly that whilst its structure is very radically impoverished, it does, so to speak, 'remain a noun'; in the terms of Distributed Morphology, for example, it *is* categorised, even if it is very little or nothing else.

At the other end of the scale, in chapter 2, we examined the construct-state 'possessive' phenomenon anew in the light of the complexities engendered by the addition of the Akkadian facts to the already much studied construct-state phenomena of Arabic and Hebrew. In doing this, we discovered a quite limited kind of structural impoverishment: only case-marking is strongly affected, and even this may, where forced by spellout pressures, resolve into its unaltered state. Furthermore, this impoverishment applies only to the surface word formed by the construct-state noun; nominal modifiers, for example, can appear in their normal form; dislocated, but in no way barred along the lines of the other phenomena this study has examined.

In chapter 1, we discovered a construction whose properties place it part way between the minimal structural impoverishment of construct-state possessum nouns and the maximal structural impoverishment of noun stative heads. The head nominals of construct-headed relative clauses, unlike those of CSDPs, cannot be associated with complex nominal syntactic structure. Furthermore, they may never manifest case, even in the masculine plural forms; furthermore, they almost certainly do not have the ability to mark plural number at all. Nonetheless, CHRC heads do retain the ability to

mark gender, unlike noun stative heads; also, unlike noun statives, CHRCs may be interpreted referentially, further suggesting a bifurcation in the properties of the syntactic processes by which the two types of impoverished nominal involved are extraordinarily licensed.

Although this thesis has been primarily devoted to an examination of the theoretical implications of the phenomena we have examined, we have also had some notable descriptive gains. First, we have strongly clarified the nature of construct-headed relative clauses, describing a number of previously unrecognised restrictions on their structure, and properly differentiating their properties from the surface-similar construct-state possessive construction for the first time.

We have also made substantial advances in the field of the stative phenomenon. Although, as we saw, the Assyriological literature has in some respects gone a long way towards an increased understanding of the stative, the noun stative in particular has always been a grave stumbling block to an adequate syntactic conception of the phenomenon as a whole; in the context of this study we have tackled the root of this complex of descriptive problems – the difficulty of unifying in a single account the nominal, adjectival and verbal stative – and have shown that this can plausibly be accomplished simply, elegantly, with a minimum of special assumptions.

It is clear, therefore, that there is no single notion 'reduced nominal' in relation to these phenomena. This does not, however, imply that important commonalities do not exist. The one unifying surface property which to a substantial extent traverses all these phenomena is an effect on case morphology. In theoretical terms, all of these structures, despite the breadth of their divergences from one another, seem to constitute contexts in which nouns may be licensed other than by Case. The availability of such a context, therefore, appears to be the lynchpin criterion permitting any of the various different possibilities for reduced nominal structures.

One central theoretical conclusion seems to be suggested by this complex of data (though, of course, one that should only be rather cautiously asserted on the basis of a single, and indeed extinct, language): that licensing of nominals (regardless whether or not as 'arguments', in any of the many senses in which this word has been used) by Case is indeed reflective of a general requirement for the licensing of nominals, not a mere epiphenomenon of some syntactic requirement of the element of which the nominal is an argument (checking, agreement, θ-role discharge, etc.); but

equally it demonstrates that the fulfilment of this licensing requirement by Case may be violated in a highly restricted and special set of cases, in certain structures available in certain grammars, where alternative forms of licensing apply. The facts of the OB CHRC in particular suggest that the discharge of θ-roles can take place, in certain special cases occasioned by independent peculiarities of the grammar, without corresponding acquisition by the nominal constituent of Case features.

4.2 Implications for the Structure of the Nominal Projection

We can now consider in broad perspective the relations between our findings and approaches to the structural decomposition of the nominal projection, as well as the question of how this projection may be 'reduced'.

One implementation of the cartographic approach would consider that all subparts of an extended projection are present even when they do not have content (Cinque 1999). A strict maintenance of this view would mean, for example, that the Kase projection would have to be part of the structure of CHRC heads regardless of whether or not it was realised, or, indeed, whether its putative presence had any discernable effect. But we have noted that Case is not only unrealised but can be shown to be radically absent from CHRC heads, as opposed to CSDPs in which Case is present in the extended nominal projection, even if not realised in this context.

In another approach to the cartography of extended projections, it is possible for only a subset of the possible projections to be present. The question then arises whether, if a given head is present, all heads below it in the extended projection are also necessarily present, or whether a freer selection of heads may be used in a projection. Guasti (2002) and Rizzi (1994) suggest that acquisition may work in something analagous to the former manner, with children using 'truncated trees', but being obliged to include every projection below the highest they use.

It is a pertinent question, therefore, to what extent this putative requirement applies to the Akkadian reduced nominals. To address this, we will first review the findings of the previous chapters in this light, beginning with the smallest reduced projections and proceeding to the larger.

First, we saw in ch. 3 that certain recategorisation processes operate on apparent nominal (and adjectival) items which are radically lacking in complex structure; the recategorisation processes are capable of fully rewriting the pattern

morphology, and (unlike any of the major reduced-nominal structure we have focused on) of forming denominal verbs with the full capacity for inflection of Akkadian verbs in general, and can most plausibly be classed as operating on a 'root' in the theoretical sense suggested by work in Distributed Morphology, as well as the sense intended in work on Semitic root-pattern morphology; presumably, simply by insertion under a verbal categorising head.

From these 'roots' we have distinguished the nominal projection which serves as the input to the formation of noun statives. Noun statives, by contrast to the former, possess marked morphological and interpretive stability; this distinction parallels that drawn between roots and minimally categorised nouns as inputs to category-changing processes in Hebrew by Arad (2003), who identified the 'stabilising' entity with a categorising head *n*. This minimally 'stabilised' nominal entity is then, in the Akkadian stative structure, verbalised in a different sense from that to which 'roots' are subject, by what we have argued is incorporation to a particular light verbal head which is a possible element of a complex verbal structure, producing stative interpretations of its complement, be that a nominal, adjectival or verbal projection.

In our examination of 'construct-headed' relative clauses in ch. 1, it was found that a reduced nominal structure of a slightly different type could act, in an extraordinary licensing environment, as the head of a relative clause. The CHRC head is of a visibly different morphological 'size' from the nominal in noun statives: unlike the noun stative, CHRC heads vary in overt morphology for gender. Furthermore, unlike noun statives, which we have argued are licensed by the formation of a type of denominal verb, CHRC heads function as normal arguments in the embedded clause and can be interpreted referentially. However, lacking, it seems, the ability to mark number, CHRC heads must in a cartographic view be headed by a category intermediate between the apparent 'basic noun' (probably *n*) found in noun statives and that in nominals which include number-marking.

The somewhat different but still partly comparable morphologically impoverished head noun of the CSDP shows a still larger structure. Although, unlike the other instances of reduced nominal structures treated here, this is not a case of a nominal projection from which certain heads appear to be radically absent, we nonetheless appear to see the dislocation internal to the full extended projection of a subconstituent which seems to be more or less equivalent in structure to a reduced

nominal projection headed by Number. This subconstituent fails to pick up case-marking morphology in the normal way, but marks number and gender as normal.

Full extended nominal structures in Akkadian ('SR' nouns), by contrast, display case-marking obligatorily in most other syntactic environments, in addition to the morphology associated with all the other features mentioned.

In light of this, we must conclude that in order to account for the Akkadian data assuming a more or less cartographic approach, we need at least to posit projections for K(ase), Num(ber), probably Gender, and something like *n* (categorising the root). We may therefore suppose that the hierarchy of these categories in the normal projection is:

(1) Kase > Number > Gender > n > √

Thus, the nominal underlying noun statives projects as far up this hierarchy as *n*; the CHRC head as far as Gender; and CSDPs project the entire hierarchy up to Kase, but extract the subprojection headed by Number and strand it, producing the (generally) impoverished surface morphological form.

The behaviour of these reduced projections in Akkadian, therefore, in so far as these observable categories are concerned, offers no instances in which a reduced nominal appears to project a certain level of nominal structure without also projecting all the elements below it in this hierarchy.

4.3 Implications beyond Akkadian

4.3.1 The construct state

We may wonder whether there are phenomena in other languages similar to those we have found in Akkadian. Of course, as discussed in ch. 2, other Semitic languages show similar, though not identical, 'construct state' possessive structures which we discussed in some detail in that chapter. We showed in this context that a number of prior analyses of this phenomenon cannot be extended as they are to Akkadian, despite the clear similarities which cut across the divergence as to the morphological material on which the apparent structural impoverishment of the possessum noun operates in the different languages, in so far as these analyses accord too great

importance to the role of determiners and definiteness in their perspectives on the construct phenomenon to take account of its properties in Akkadian. Interestingly, a set of perspectives on the construct state phenomenon has recently begun to emerge which does not focus on the role of determiners and definiteness in the same way, exemplified particularly in the work of Ouhalla (2009) and Walter (2007). The latter dealt with a simplified version of the Akkadian facts, and cannot hold as it stands, but, by bringing forward the important comparison with Classical Arabic into the generative discussion, to my knowledge for the first time, provided an important advance towards a view that a crucial feature of the construct phenomenon viewed cross-linguistically is a type of morphological impoverishment which can be relativised across the categories which are overt in the relevant languages. In the present work we have developed a version of this line of thought significantly further following a more careful examination of the Akkadian facts. It is to be hoped that this will serve as a first extended attempt in the generative tradition at adopting a perspective on the construct phenomenon that can begin to fully take the hitherto neglected variety of its various manifestations into account.

4.3.2 Reduced-nominal predication structures

The noun stative phenomenon seems thus far to be unique to Akkadian. The possibility of deriving a kind of denominal verb through incorporation to a copula-like verbal head seems not to have been reported as such for other languages.

However, slightly more open comparison would suggest that phenomena with some not entirely dissimilar properties exist in much better-studied languages, though without the more obvious 'verbalisation' of the Akkadian stative. Note that in Akkadian the noun stative must be bare (no adjectives, no number-marking, no gender-marking), allowing only the most minimal aspect of nominal structure which seems to classify it as nominal. Furthermore, the noun stative is restricted to predicational interpretation.

Looking beyond Semitic, there does for example appear to be a phenomenon in various languages of the predication of a noun, similarly restricted to predicational interpretation, which also involves some obligatory structural 'reduction' of the typical nominal projection, though not in quite the same sense as in the Akkadian stative. French offers a well-known example of such a phenomenon.

At first, despite these quite crude similarities, the French predicative structure seems quite different. It shows an apparent copular verb separate from the complement. The complement obligatorily lacks a determiner despite the otherwise obligatory presence of determiners in most environments in the language.

(2) a. *Il est un médecin.
he is a.MASC doctor
"He is a doctor."
b. Il est médecin.

Furthermore, these determinerless predicates cannot generally be modified, including by most adjectives. However, if one inserts an adjective into the full structure shown in (2)a, which is ungrammatical without a modifier, it becomes grammatical. Conversely, if the same adjective is inserted in a determinerless predication like (2)b, this results in ungrammaticality. This has a more or less exact parallel in the Akkadian stative: as discussed at some length in section 3.1, all modifiers such as adjectives seem to be barred in the Akkadian stative; by contrast, adjectives are freely available in SR predication of nominal constituents, which is at best rare with predicational interpretations when no modifier is present.

(3) a. Il est un grand médecin.
great
"He is a great doctor."
b. *Il est grand médecin.

Naturally, there are also very marked differences. In this brief discussion we will mention two apparent syntactic variances. First, although modifiers are generally barred in the determinerless predication of nouns in French, a certain type of modification is possible, exemplified in (4).

(4) a. Il est danceur grec
he is dancer Greek
"He is a Greek dancer."
b. Elle est médecin généraliste
she is doctor generalist
"She is a general practitioner."
c. *Elle est médecin excellent.
excellent

However, the interpretation of such modifiers is very restricted; (4)a can only mean 'performer of Greek dancing', not 'dancer of Greek nationality or origin'; examples such as (4)b are interpreted almost as fixed expressions or compounds. (4)c, by contrast, which has no such interpretation, is barred.

A second apparent difference concerns the presence of an overt separate copula. Akkadian clauses containing noun (and other) statives do not show any other overt separate verbal material; the nominal base is incorporated into a structure which appears to be itself verbal and shows overt subject agreement morphology 'on' the surface word composed by the noun stative and the material to which it is incorporated. The alternative, non-stative form of nominal predication in Akkadian is also a structure with no overt copula or other verb- or auxiliary-like material.

By contrast in the French predicative structure it appears that there is a separate copula which cannot be null in a main clause. However, if the French copular structures could be shown to consist of the verb *être* as an auxiliary in T, hosting tense and subject agreement morphology but accompanied by a null copular verb in the VP domain, a tentative possibility of a somewhat deeper syntactic similarity could suggest itself, whereby the nominal predicate would incorporate into this null copular verb (or even, perhaps, something along the broad lines of v_{stat}). This incorporation would explain on a syntactic basis the need for the noun to be bare and the general absence of modifiers. The marginal modification structures like those in (4) could then perhaps be restricted to those collocations sufficiently familiar to act analagously to compounds which could undergo incorporation as a syntactic unit.

There is, though, one further and very striking *dissimilarity*: this is not obviously a cross-categorial phenomenon incorporating verbal projections as it does in Akkadian. It is therefore clearly not possible simply to claim this as a parallel to the Akkadian stative. However, there are nevertheless sufficient demonstrable and close syntactic similarities that the parallels can perhaps be taken as a serious matter for further investigation. Most existing treatments of this kind of predication structure derive the variations primarily as reflexes of the semantic properties assumed to hold of nominal projections with determiners as against those which are 'bare' in this sense (cf. e.g. Beyssade 2011; Roy 2006). The semantic complexities are, of course, very real and significant, but the comparison with Akkadian might suggest that some of the properties of phenomena of this type might have a more 'unusual' and interesting syntactic reality than has been entertained in most existing analyses.

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